Alarm Gateway Object for Wonderware Application Server

User Guide
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PR 00185

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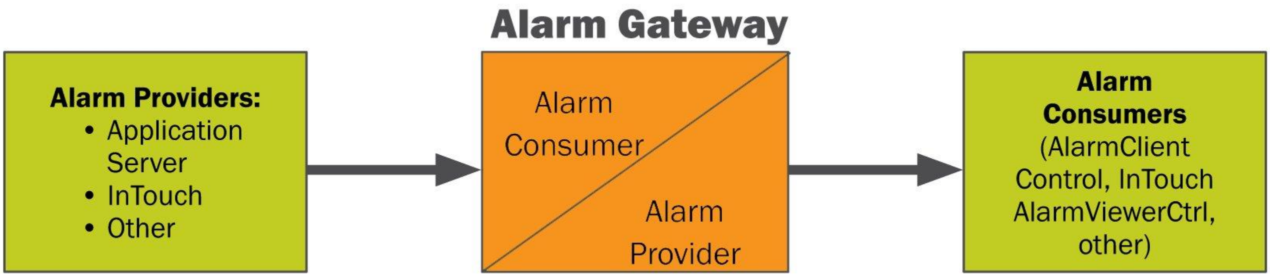
Alarm Gateway Object for Wonderware Application Server

Introduction

The **Alarm Gateway Object** (Alarm Gateway) is a basic component of Wonderware Finland **Alarm Extension Pack** and provides the functionality to create separate configurable Alarm Provider for alarms coming from Wonderware Application Server (WAS) and/or other Alarm Providers compatible with Wonderware Alarm System:



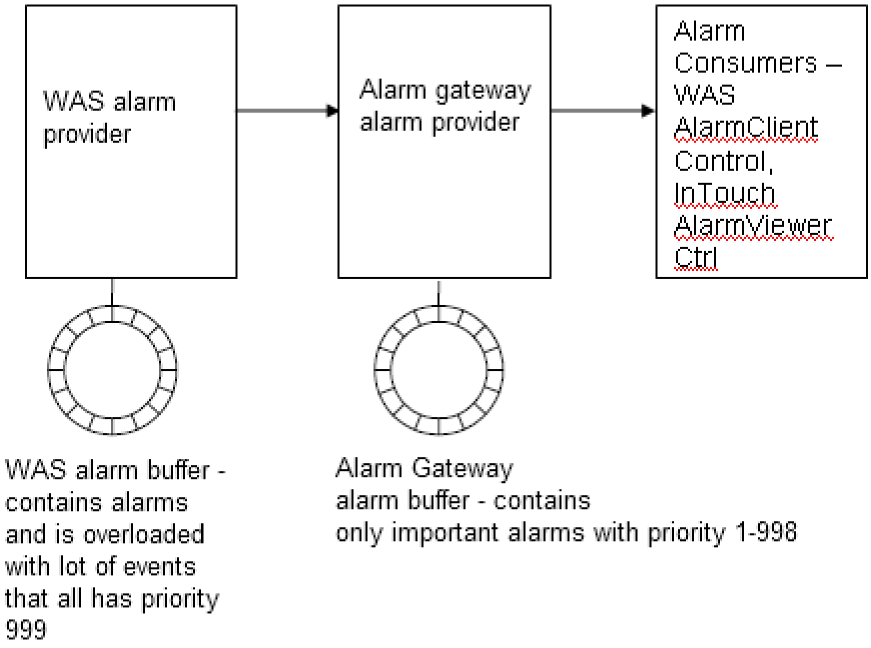
Alarm Gateway supports advanced alarm filtering, mimic and shelved alarms, possibilities to use and modify the user defined fields and event priority fields. Avoids alarm loss and duplicated alarms in high loaded systems. Supports functionality to send/receive alarms to/from Wonderware alarming system from/to UReason Alarm Management system. The Alarm Gateway Object is developed by using Wonderware Distributed Alarm Toolkit.

The Alarm Gateway can be used to solve, for example, the following tasks:

Avoid alarm loss in high loaded systems:

WAS Historical alarms and events are stored in a circular buffer, where the oldest entries are discarded to make room for new ones, so in case there generated a lot of events then important alarms can be lost.

By using the Alarm Gateway, it is possible to store all important alarms in separate Alarm Gateway buffer - that can be done by querying alarms/events only with priorities from 1 to 998:


WAS alarm provider
Alarm gateway alarm provider
Alarm Consumers – WAS AlarmClient Control, InTouch AlarmViewer Ctrl
WAS alarm buffer - contains alarms and is overloaded with lot of events that all has priority 999
Alarm Gateway alarm buffer - contains only important alarms with priority 1-998

Note: Alarm Gateway alarm buffer can contain about 6000-7000 alarms. The total number of stored alarms depends on size of alarms.

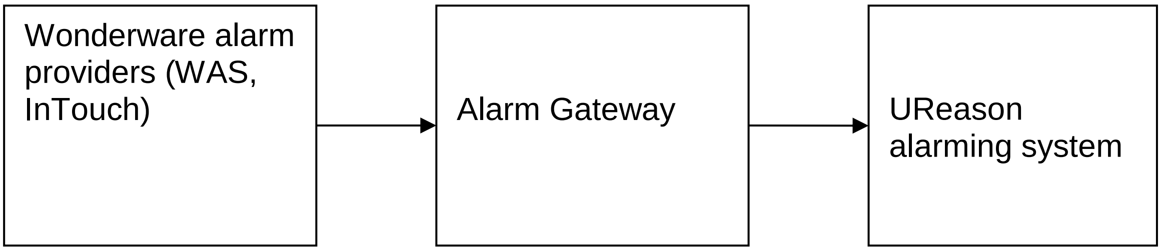
Change the event priority:

WAS alarming system does not provide possibility to configure event priority - all events have built-in priority 999.

By using Alarm Gateway, it is possible to change the event priority by using the setPriority custom attribute .For more information see the “Custom attributes” section “setPriority” later in this User Guide.

Connect to UReason alarming system:

Alarm Gateway can send alarms/events from Wonderware alarming system to UReason alarming system. For more information see “UReason gateway” section later in this User Guide.



Installing the Alarm Gateway Object

Hardware requirements

The Alarm Gateway Object has the same hardware requirements as Wonderware Application Server. It is strongly recommended to have computer at least with 2 GHz or faster processor, 64-bit. A multi-core processor is also strongly recommended. The Intel Itanium 2 processor is not supported.

Software requirements

The Wonderware **Application Server 3.1** version or later is supported.

Content of delivery package

The Alarm Gateway Object can be delivered: 1) included in Wonderware Finland Alarm Extension Pack or 2) as a separate package. The following are Alarm Gateway Object files:

- **AlarmGatewayxx.aaPDF -** Alarm Gateway Object standard description file containing the implementation code for a base template, where xx is the current version of Alarm Gateway Object

- **AlarmGateway.aaDEF** - Alarm Gateway Object definition file

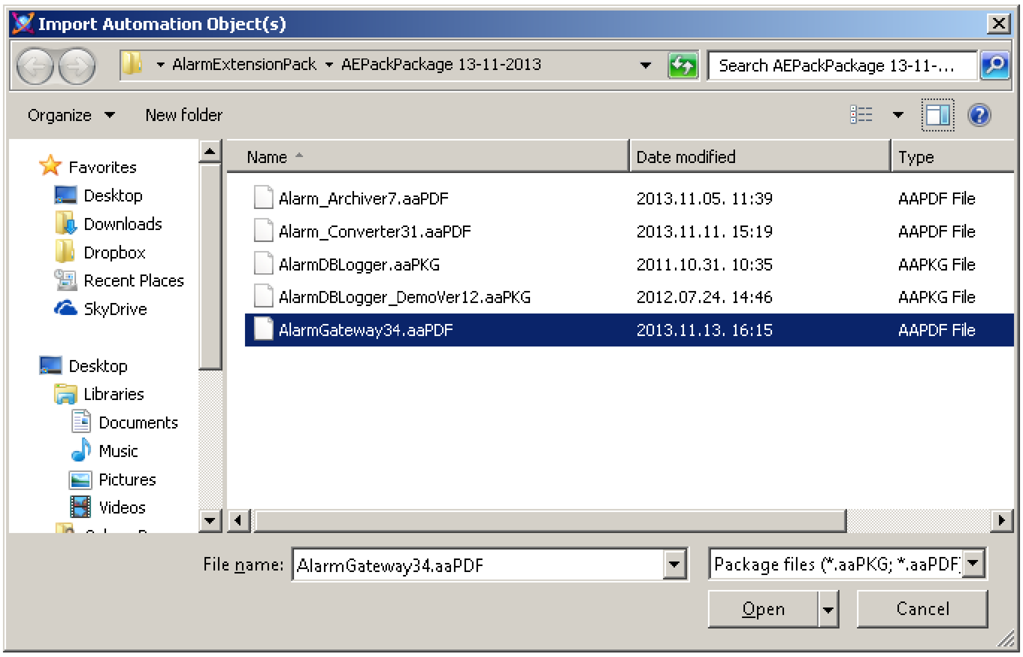
- **P185m112.pdf** – Alarm Gateway Object User Manual (this document)

Installing standalone object

Object import

1) Copy **Alarm Gateway** Object files to some folder, e.g. to C:/Install.

2) Start **ArchestrA IDE** and import the **AlarmGatewayxx.aaPDF** file (xx is the current version of Alarm Gateway Object) to a new/existing galaxy (in the further explanation we will assume the new galaxy **grTest1** is used):



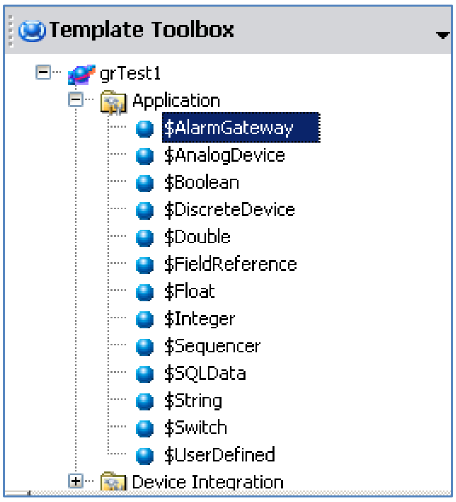
Name	Date modified	Type
Alarm_Archiver7.aaPDF	2013.11.05. 11:39	AAPDF File
Alarm_Converter31.aaPDF	2013.11.11. 15:19	AAPDF File
AlarmDBLogger.aaPKG	2011.10.31. 10:35	AAPKG File
AlarmDBLogger_DemoVer12.aaPKG	2012.07.24. 14:46	AAPKG File
AlarmGateway34.aaPDF	2013.11.13. 16:15	AAPDF File

File name: AlarmGateway34.aaPDF

Package files (*.aaPKG; *.aaPDF

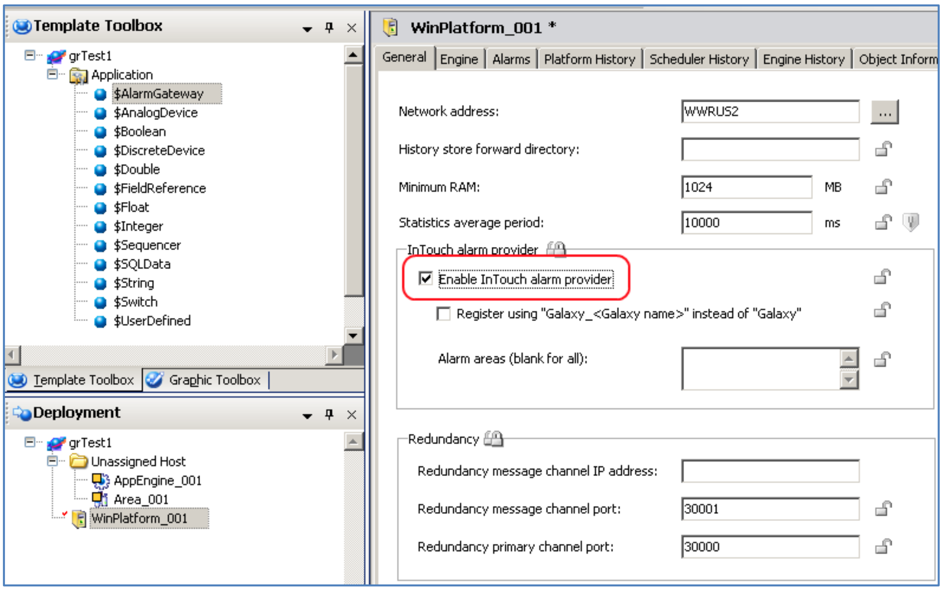
Note: If you are using existing galaxy and there is already deployed older Alarm Gateway object version, then please follow the upgrade instructions from **Object upgrade procedure** section at the end of this manual.

3) After importing, the **$AlarmGateway** template is added to Template Toolbox:



Object configuration

1) Create the WinPlatform object (if not already created) with “alarm provider” feature enabled:



Network address: WWRUS2

History store forward directory:

Minimum RAM: 1024 MB

Statistics average period: 10000 ms

☑ Enable InTouch alarm provider

□ Register using "Galaxy_<Galaxy name>" instead of "Galaxy"

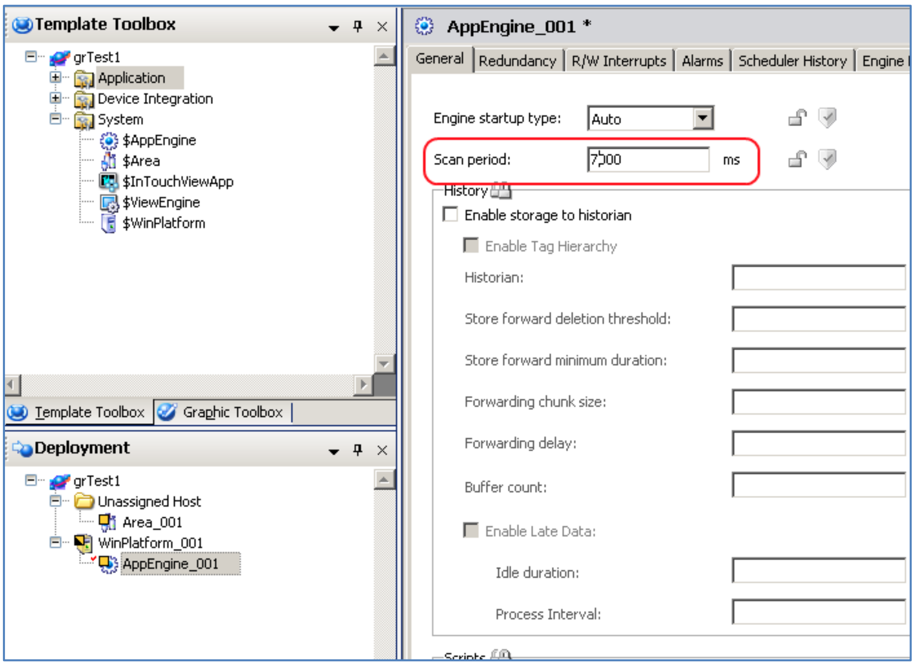
Alarm areas (blank for all):

Redundancy message channel IP address:

Redundancy message channel port: 30001

Redundancy primary channel port: 30000

2) Create the AppEngine and assign it to Platform object (Deployment View):



Engine startup type: Auto

Scan period: 7000 ms

□ Enable storage to historian

□ Enable Tag Hierarchy

Historian:

Store forward deletion threshold:

Store forward minimum duration:

Forwarding chunk size:

Forwarding delay:

Buffer count:

□ Enable Late Data:

Idle duration:

Process Interval:

It is recommended to set the Engine scan period at least to 1 second and even more (2-3 seconds) in case the Alarm Gateway Object is planned to be used in highly loaded alarm systems (more than 50 often changing active alarms) and with additional features enabled, like **Custom Alarm/Event attributes** and **UReason alarm system**.

Note: It is highly recommended to deploy Alarm Gateway Object to separate engine where are no production objects deployed, to distribute the possible CPU load among multiple CPU cores:

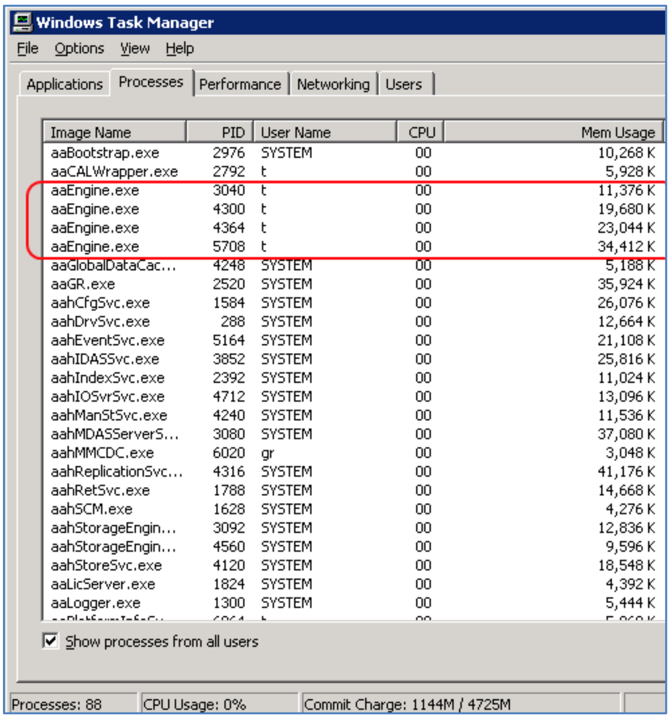
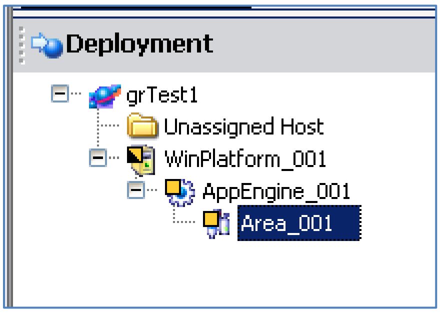


Image Name	PID	User Name	CPU	Mem Usage
aaBootstrap.exe	2976	SYSTEM	00	10,268 K
aaCALWrapper.exe	2792	t	00	5,928 K
aaEngine.exe	3040	t	00	11,376 K
aaEngine.exe	4300	t	00	19,680 K
aaEngine.exe	4364	t	00	23,044 K
aaEngine.exe	5708	t	00	34,412 K
aaGlobalDataCac...	4248	SYSTEM	00	5,188 K
aaGR.exe	2520	SYSTEM	00	35,924 K
aahCfgSvc.exe	1584	SYSTEM	00	26,076 K
aahDrvSvc.exe	288	SYSTEM	00	12,664 K
aahEventSvc.exe	5164	SYSTEM	00	21,108 K
aahIDASSvc.exe	3852	SYSTEM	00	25,816 K
aahIndexSvc.exe	2392	SYSTEM	00	11,024 K
aahIOSvrSvc.exe	4712	SYSTEM	00	13,096 K
aahManStSvc.exe	4240	SYSTEM	00	11,536 K
aahMDASServerS...	3080	SYSTEM	00	37,080 K
aahMMCDC.exe	6020	gr	00	3,048 K
aahReplicationSvc...	4316	SYSTEM	00	41,176 K
aahRetSvc.exe	1788	SYSTEM	00	14,668 K
aahSCM.exe	1628	SYSTEM	00	4,276 K
aahStorageEngin...	3092	SYSTEM	00	12,836 K
aahStorageEngin...	4560	SYSTEM	00	9,596 K
aahStoreSvc.exe	4120	SYSTEM	00	18,548 K
aaLicServer.exe	1824	SYSTEM	00	4,392 K
aaLogger.exe	1300	SYSTEM	00	5,444 K

☑ Show processes from all users

Processes: 88 CPU Usage: 0% Commit Charge: 1144M / 4725M

3) Create the Area object and assign it to AppEngine object:

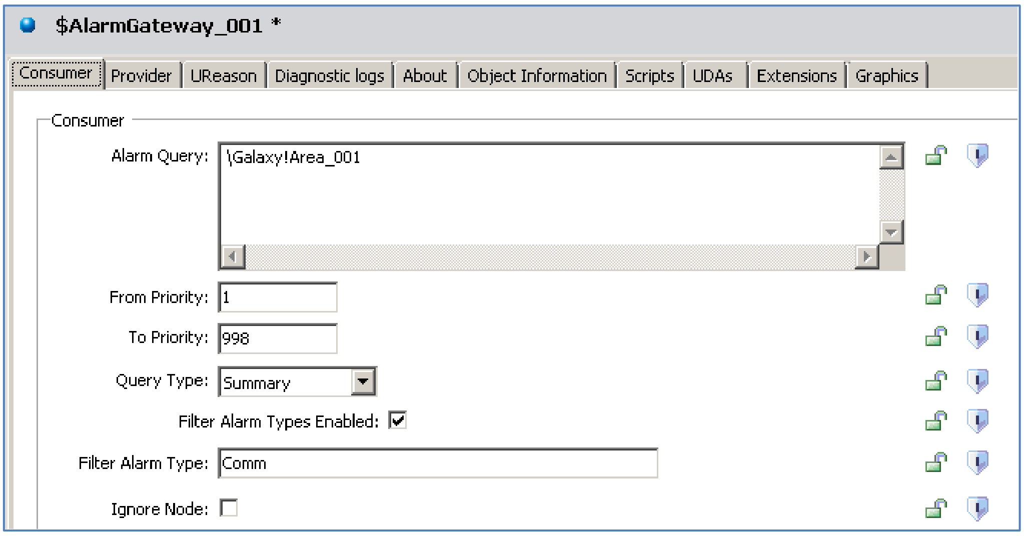


4) Create the **Alarm Gateway** instance and assign it to Area object.
5) Open **Alarm Gateway** Object editor and configure the following parameters:

a) In **Consumer** tab:

- Set **Alarm Query**: \Galaxy!Area_001
- Set **To Priority**: 1
- Set **From Priority**: 998
- Enable **Filter Alarm Types:** set the Comm filter

The **Area_001** is Area name what is the host of Alarm Gateway object, or other Area can be specified that host objects with alarming enabled:



Consumer

Alarm Query: \Galaxy!Area_001

From Priority: 1

To Priority: 998

Query Type: Summary

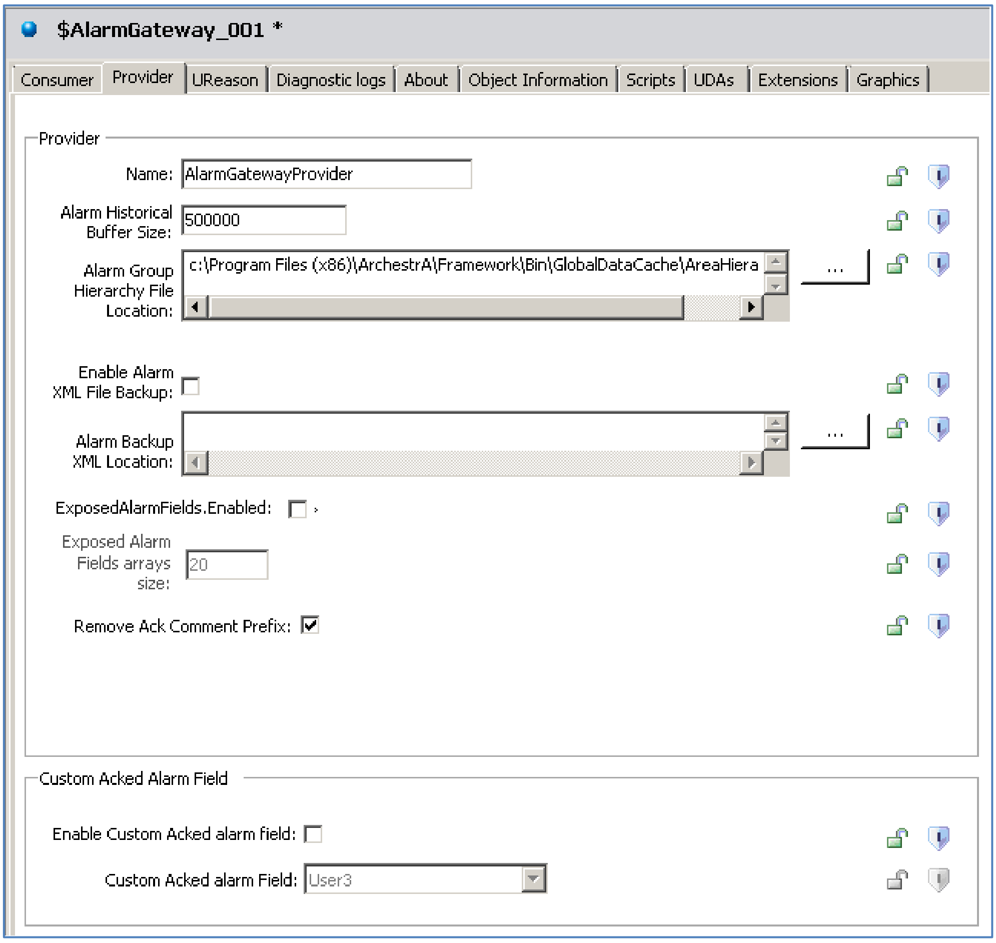
Filter Alarm Types Enabled: ☑

Filter Alarm Type: Comm

Ignore Node: □

b) In **Provider** tab:

Change the Alarm Provider name in case that is needed by Alarm Clients:



Provider

Name: AlarmGatewayProvider

Alarm Historical Buffer Size: 500000

Alarm Group Hierarchy File Location: c:\Program Files (x86)\ArchestrA\Framework\Bin\GlobalDataCache\AreaHiera

Enable Alarm XML File Backup: □

Alarm Backup XML Location:

ExposedAlarmFields.Enabled: □

Exposed Alarm Fields arrays size: 20

Remove Ack Comment Prefix: ☑

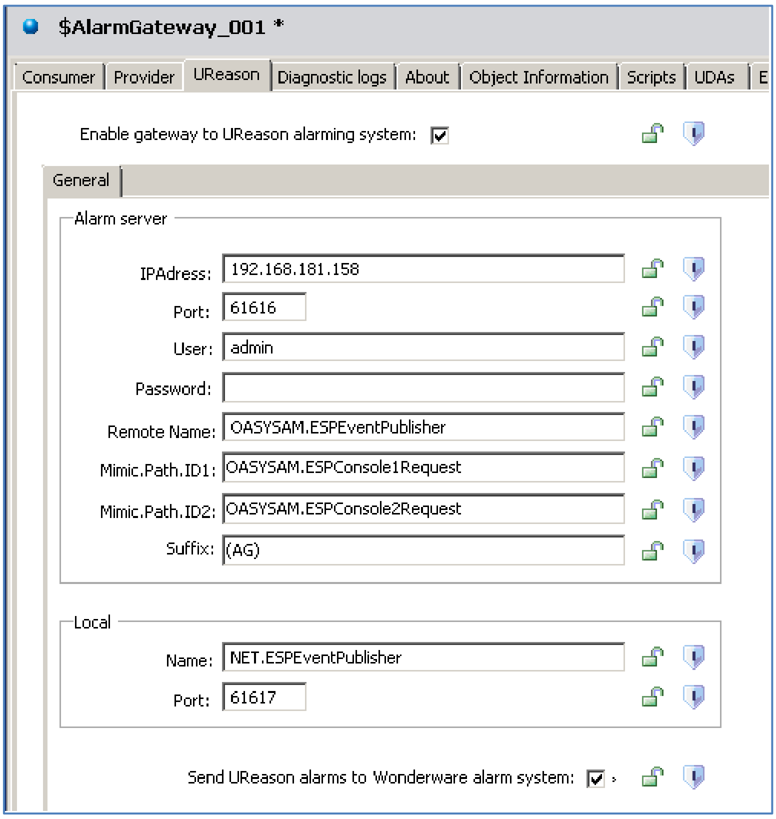
Custom Acked Alarm Field

Enable Custom Acked alarm field: □

Custom Acked alarm Field: User3

c) In **UReason** tab:

If necessary, enable the connection with **UReason** alarming system:



Enable gateway to UReason alarming system: ☑

Alarm server

IPAdress: 192.168.181.158

Port: 61616

User: admin

Password:

Remote Name: OASYSAM.ESPEventPublisher

Mimic.Path.ID1: OASYSAM.ESPConsole1Request

Mimic.Path.ID2: OASYSAM.ESPConsole2Request

Suffix: (AG)

Local

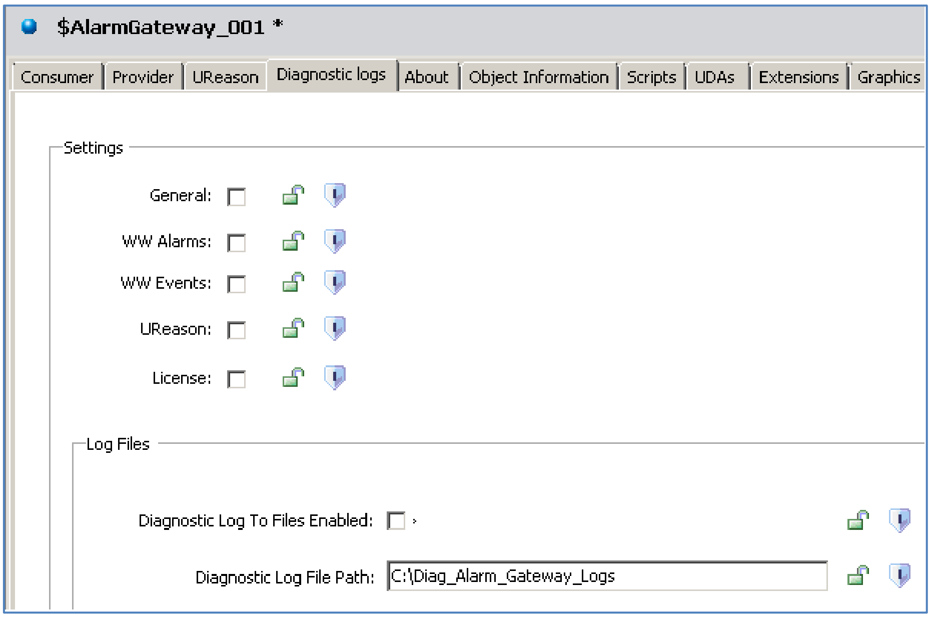
Name: NET.ESPEventPublisher

Port: 61617

Send UReason alarms to Wonderware alarm system: ☑

d) In **Diagnostic logs** tab:

If necessary, enable the diagnostic logging (for more details refer to **Advanced Troubleshooting** section later in this manual):



Settings

General: □

WW Alarms: □

WW Events: □

UReason: □

License: □

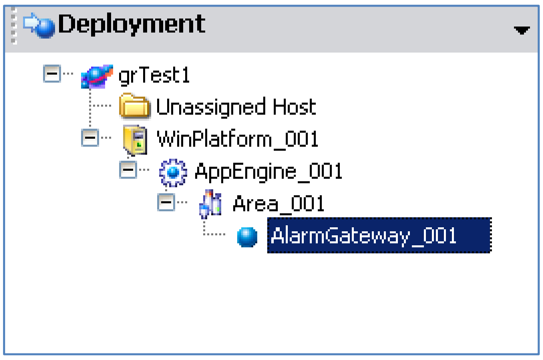
Log Files

Diagnostic Log To Files Enabled: □

Diagnostic Log File Path: C:\Diag_Alarm_Gateway_Logs

6) In **Area_001, c**reate or import some objects with alarming enabled.

7) Deploy all created objects:



8) Enable the Alarm Gateway Object licensing - see **Licensing requirements** section for details.

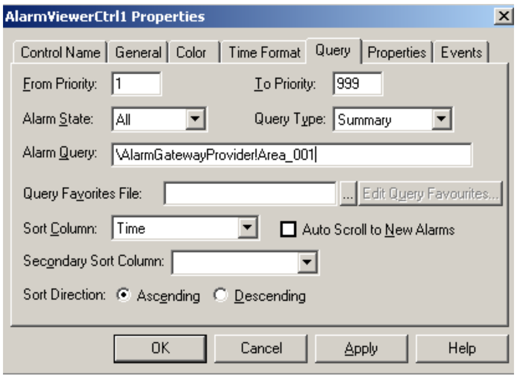
9) Create or import InTouch application to test the AlarmGateway alarms. Configure the Alarm Client - Alarm Query should be like:

\\WWNode\AlarmGatewayProvider!Area_001

or

\\192.168.75.209\AlarmGatewayProvider!Area_001

Note: The Alarm Query without Node name like **AlarmGatewayProvider!Area_001** or **/AlarmGatewayProvider!Area_001** will not work on Windows 2008 Server:



From Priority: 1

To Priority: 999

Alarm State: All

Query Type: Summary

Alarm Query: \AlarmGatewayProvider!Area_001

Query Favorites File:

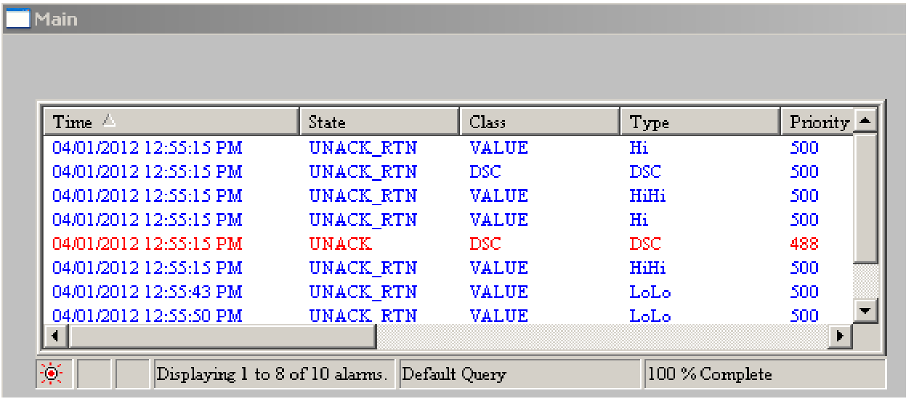
Sort Column: Time

□ Auto Scroll to New Alarms

Secondary Sort Column:

Sort Direction: ● Ascending ○ Descending

10) Run the InTouch application and check alarms:



Time	State	Class	Type	Priority
04/01/2012 12:55:15 PM	UNACK_RTN	VALUE	Hi	500
04/01/2012 12:55:15 PM	UNACK_RTN	DSC	DSC	500
04/01/2012 12:55:15 PM	UNACK_RTN	VALUE	HiHi	500
04/01/2012 12:55:15 PM	UNACK_RTN	VALUE	Hi	500
04/01/2012 12:55:15 PM	UNACK	DSC	DSC	488
04/01/2012 12:55:15 PM	UNACK_RTN	VALUE	HiHi	500
04/01/2012 12:55:43 PM	UNACK_RTN	VALUE	LoLo	500
04/01/2012 12:55:50 PM	UNACK_RTN	VALUE	LoLo	500

Displaying 1 to 8 of 10 alarms. Default Query 100 % Complete

Licensing requirements

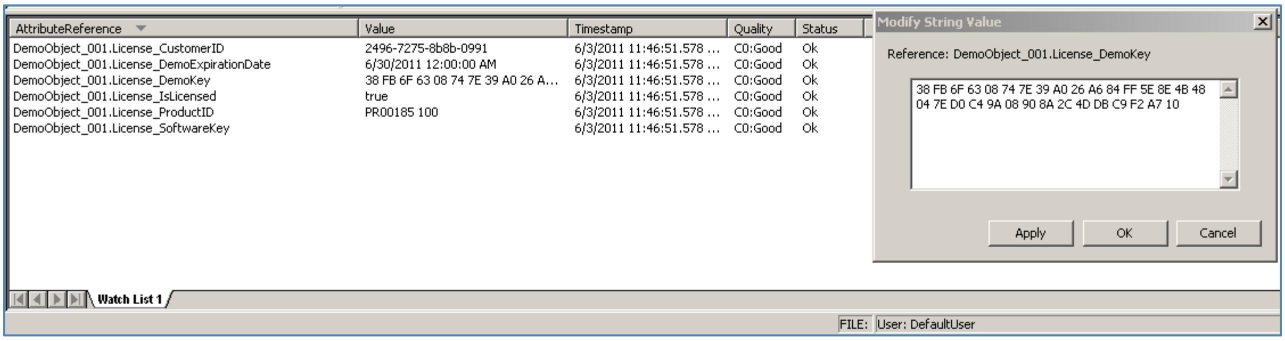
Alarm Gateway Object supports two types of licenses:

- The **Demo License** is for free and provides an unlimited functionality, but it is valid only for a limited time period (usually one month).
- The **Software Key** enables the Alarm Gateway Object unlimited full time running without any restrictions.

Demo License installation

The **Demo License** is for free and provides an unlimited functionality, but it is valid only for a limited time period. After Demo License expiration, the Alarm Gateway will stop to provide the alarms. The Demo License can be obtained by sending inquiry to info@wonderware.fi.

To activate the received Demo License, you need to copy it to Alarm Gateway Object **License.DemoKey** attribute:



AttributeReference	Value	Timestamp	Quality	Status
DemoObject_001.License_CustomerID	2496-7275-8b8b-0991	6/3/2011 11:46:51.578 ...	C0:Good	Ok
DemoObject_001.License_DemoExpirationDate	6/30/2011 12:00:00 AM	6/3/2011 11:46:51.578 ...	C0:Good	Ok
DemoObject_001.License_DemoKey	38 FB 6F 63 08 74 7E 39 A0 26 A...	6/3/2011 11:46:51.578 ...	C0:Good	Ok
DemoObject_001.License_IsLicensed	true	6/3/2011 11:46:51.578 ...	C0:Good	Ok
DemoObject_001.License_ProductID	PR00185 100	6/3/2011 11:46:51.578 ...	C0:Good	Ok
DemoObject_001.License_SoftwareKey		6/3/2011 11:46:51.578 ...	C0:Good	Ok

Reference: DemoObject_001.License_DemoKey

```
38 FB 6F 63 08 74 7E 39 A0 26 A6 84 FF 5E 8E 4B 48
04 7E D0 C4 9A 08 90 8A 2C 4D DB C9 F2 A7 10
```

FILE: User: DefaultUser

If Demo License is valid (correct Demo Key string is installed), the **License.IsLicensed** attribute is True and expiration date/time is logged to Wonderware SMC Log Viewer.

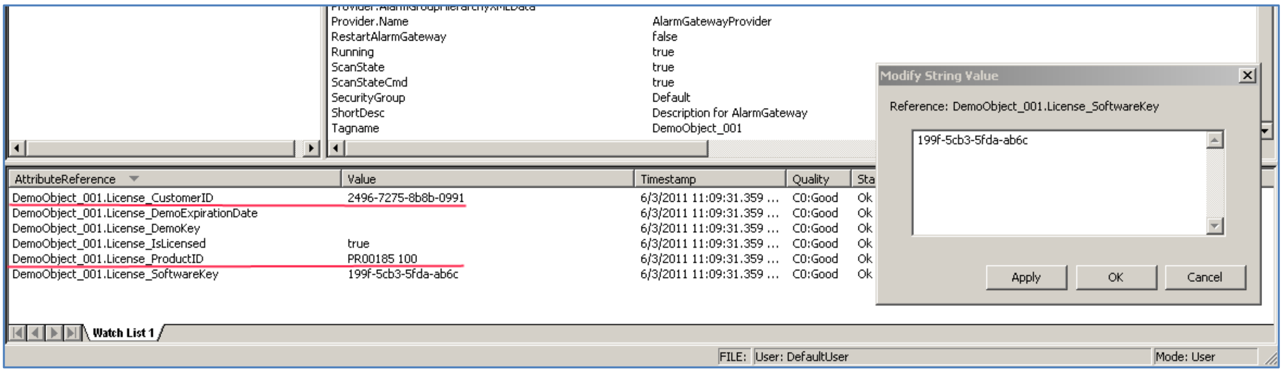
Software Key installation

The **Software Key** enables the Alarm Gateway Object unlimited full time running without any restrictions.

To get and enable the **Software Key**:

- get “Product ID” from object **License.ProductID** attribute (e.g. PR00185 100);
- get “Customer ID” from object **License.CustomerID** attribute;
- copy/paste it to e-mail (or text file or similar) and provide this “Customer ID” string when ordering the Alarm Gateway Object;
- when product is purchased, copy the received “Software Key” to Alarm Gateway Object **License.SoftwareKey** attribute:

If license key is valid (correct Software Key string is installed), the **License.IsLicensed** attribute is set to True and product is ready for use:



Provider.Name	AlarmGatewayProvider
RestartAlarmGateway	false
Running	true
ScanState	true
ScanStateCmd	true
SecurityGroup	Default
ShortDesc	Description for AlarmGateway
Tagname	DemoObject_001

AttributeReference	Value	Timestamp	Quality	Sta
DemoObject_001.License_CustomerID	2496-7275-8b8b-0991	6/3/2011 11:09:31.359 ...	C0:Good	Ok
DemoObject_001.License_DemoExpirationDate		6/3/2011 11:09:31.359 ...	C0:Good	Ok
DemoObject_001.License_DemoKey		6/3/2011 11:09:31.359 ...	C0:Good	Ok
DemoObject_001.License_IsLicensed	true	6/3/2011 11:09:31.359 ...	C0:Good	Ok
DemoObject_001.License_ProductID	PR00185 100	6/3/2011 11:09:31.359 ...	C0:Good	Ok
DemoObject_001.License_SoftwareKey	199f-5cb3-5fda-ab6c	6/3/2011 11:09:31.359 ...	C0:Good	Ok

Reference: DemoObject_001.License_SoftwareKey

199f-5cb3-5fda-ab6c

FILE: User: DefaultUser Mode: User

There are following licensing run-time attributes:

Attribute	Description	Run-Time Access
License.CustomerID	Unique generated customer ID	Read-Only
License.DemoExpirationDate	Demo License expiration date	Read-Only
License.DemoKey	Demo License key	User
License.IsLicensed	If True then product is licensed	Read-Only
License.ProductID	Product ID	Read-Only
License.SoftwareKey	Product Software Key	User

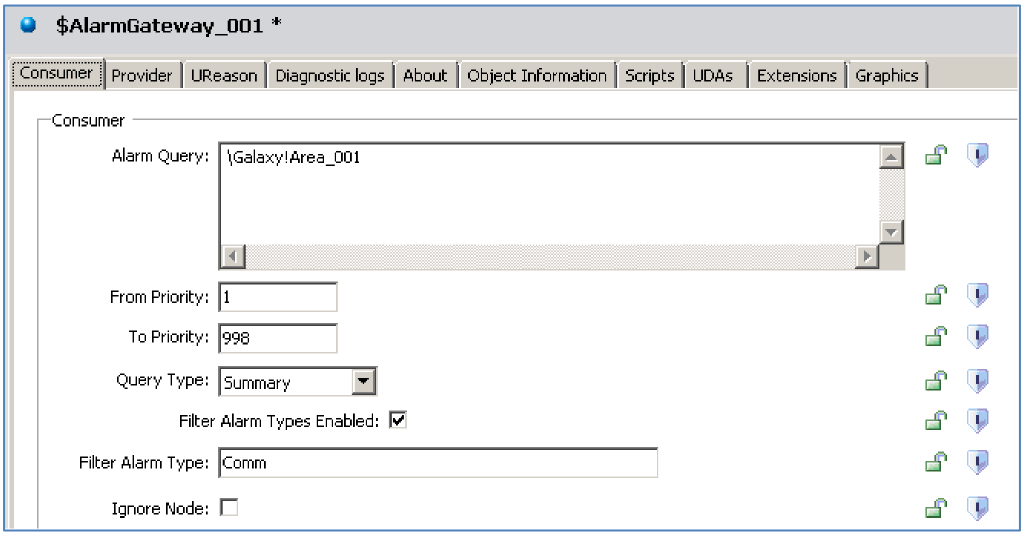
Configuration

For general information about Wonderware Automation Objects (including relationships, deployment and alarm distribution) - see the Wonderware Integrated Development Environment (IDE) documentation.

For information on configuration options for object information, scripts, user-defined attributes (UDAs), or attribute extensions, click **Extensions Help** in the Help file header.

General Configuration

Use the **Consumer** tab to configure and adjust the behavior of Alarm Gateway Object Alarm Consumer:



Alarm Query: \Galaxy!Area_001

From Priority: 1

To Priority: 998

Query Type: Summary

Filter Alarm Types Enabled: ☑

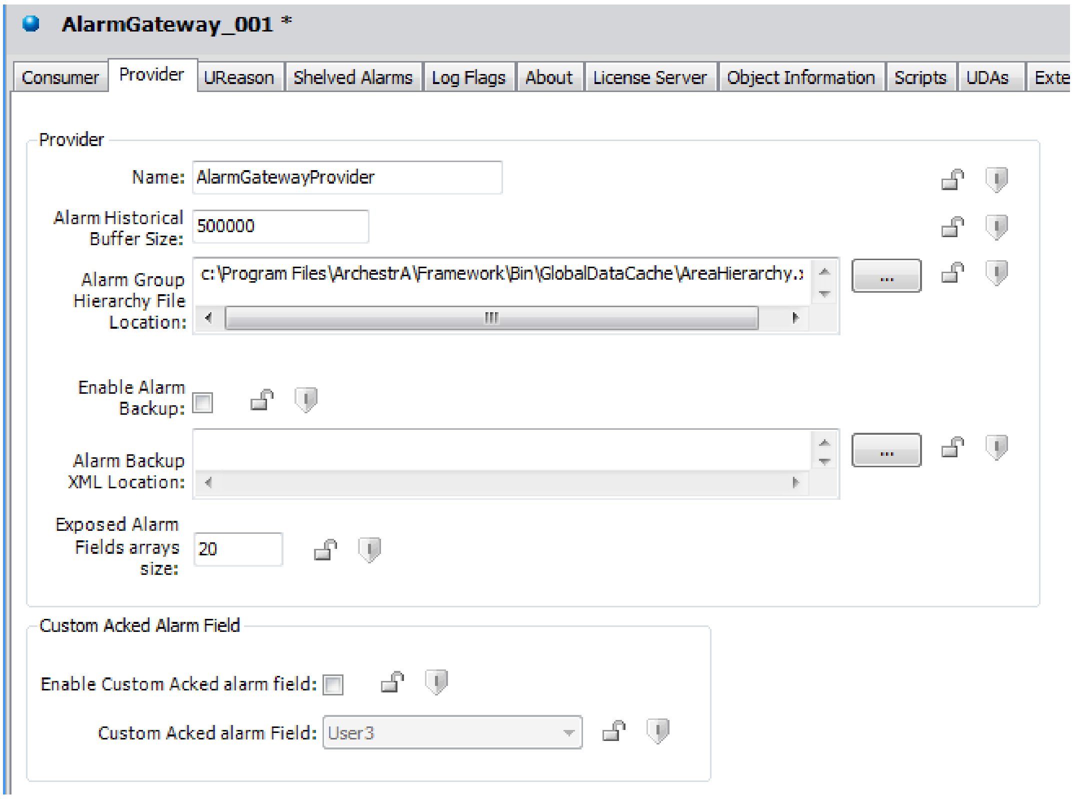
Filter Alarm Type: Comm

Ignore Node: □

Consumer:

Editor Option	Associated Attribute(s)	Description
Alarm Query	Consumer.AlarmQuery	Consumer Alarm Query
From Priority	Consumer.FromPriority	Enter the starting value of the alarm priority range
To Priority	Consumer.ToPriority	Enter the ending value of the alarm priority range
Query Type	Consumer.QueryType	Alarm query type
Alarm Type filter	Enable/disable: Consumer.FilterAlarmTypesEnabled Consumer.FilterAlarmTypes	Provider advanced functionality to filter alarms by type, e.g. can filter out all Comm alarms

Use the **Provider** tab to configure and tune the behavior of Alarm Gateway Object Alarm Provider:



Provider

Name: AlarmGatewayProvider

Alarm Historical Buffer Size: 500000

Alarm Group Hierarchy File Location: c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCache\AreaHierarchy.:

Enable Alarm Backup: ☐

Alarm Backup XML Location:

Exposed Alarm Fields arrays size: 20

Custom Acked Alarm Field

Enable Custom Acked alarm field: ☐

Custom Acked alarm Field: User3

Provider:

Editor Option	Associated Attribute	Description
Name	Provider.Name	Alarm provider name
Alarm Historical Buffer Size	Provider.AlarmBufSize	Alarm buffer size
Alarm Group Hierarchy XML	Provider.AlarmHierarchyFile	Path to WAS generated Alarm (Area) hierarchy file Default value: c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCache \AreaHierarchy.xml
Alarm Backup XML Location	Provider.AlarmBackup Location	Location of Alarm Backup XML files
Exposed Alarm Fields arrays size	ExposedAlarmFields.ArraysSize	Exposed Alarm Fields array size (for more details see then **Exposed Alarm Fields** section)
Custom Acked Alarm Field	Enable/disable: EnableCustomAckField CustomAckAlarmField	For more details see the **Custom Acked Alarm comment field** section

Run-Time Object Attributes

All Alarm Gateway object attributes are grouped into following groups, by attribute prefix:

AlarmGateway - defines attributes for Alarm Gateway general configuration and status;
Provider - defines attributes for Alarm Provider configuration;
Consumer - defines attributes for Alarm Consumer configuration;
License - defines attributes for licensing;
Set - defines custom attributes, for more information see the “Custom attributes” section

The following table lists the run-time only attributes for the Alarm Gateway Object.

Note: Configurable run-time attributes are described in the configuration sections. For more information, see **Configuration** section above.

Attribute	Description	Run-Time Access
AlarmGateway.AlarmGroups	Displays all created alarm groups (alarm Areas)	Read Only
AlarmGateway.LastErrorMessage	Last Error Message	Read Only
AlarmGateway.LastErrorCode	Last Error Code (No errors = 0)	Read Only
AlarmGateway.Restart	Trigger – if set to True then restarts Alarm Gateway	User
AlarmGateway.Started	If true Alarm Gateway is Started and running	Read Only
Consumer.Status	Current status of Alarm Gateway	Read Only
License.isLicensed	Displays Alarm Gateway license status; True = Alarm Gateway is licensed	Read Only
Provider.TotalAlarmsCreated	Total number of Wonderware Alarms created	Read Only
Provider.TotalEventsCreated	Total number of Wonderware Events created	Read Only
UReason.Connected	Displays connection status with UReason alarm system; True = connected	Read Only
UReason.TotalAlarmsAcked	Total number of Wonderware alarms acknowledged in UReason alarm system	Read Only
UReason.TotalWWAlarmsCreated	Total number of Wonderware Alarms created in UReason alarm system	Read Only
UReason.TotalWWEventsCreated	Total number of Wonderware Events created in UReason alarm system	Read Only
Version.Runtime	Alarm Gateway runtime version information	Read Only

Note: It is highly recommended to run any Alarm Gateway Object in separate Engine since Alarm Gateway uses scan interval for reading the alarms. Recommended Engine scan interval for Alarm Gateway is at least 1000 ms.

Custom Alarm/Event attributes

By using custom attributes, it is possible to change following alarm data fields in Wonderware alarm system or in UReason alarm system:

For Wonderware alarm custom attributes, the prefix **setWW_** is used; for Ureason - attribute prefix **setUR_** is used:

Custom Attribute	Alarming system	Description
SetWW_User1	Wonderware	User-defined field number 1.
SetWW_User2	Wonderware	User-defined field number 2.
SetWW_User3	Wonderware	User-defined field, string.
SetWW_Priority	Wonderware	Alarm/Event Priority.
SetUR_Source	UReason	Alarm Source
SetUR_Class	UReason	Alarm Class

Custom attributes can be set from WAS scripts with following command:

Syntax: objectName.CustomAttribute = “Alarm/Event name = value”

Wonderware alarm system custom attributes

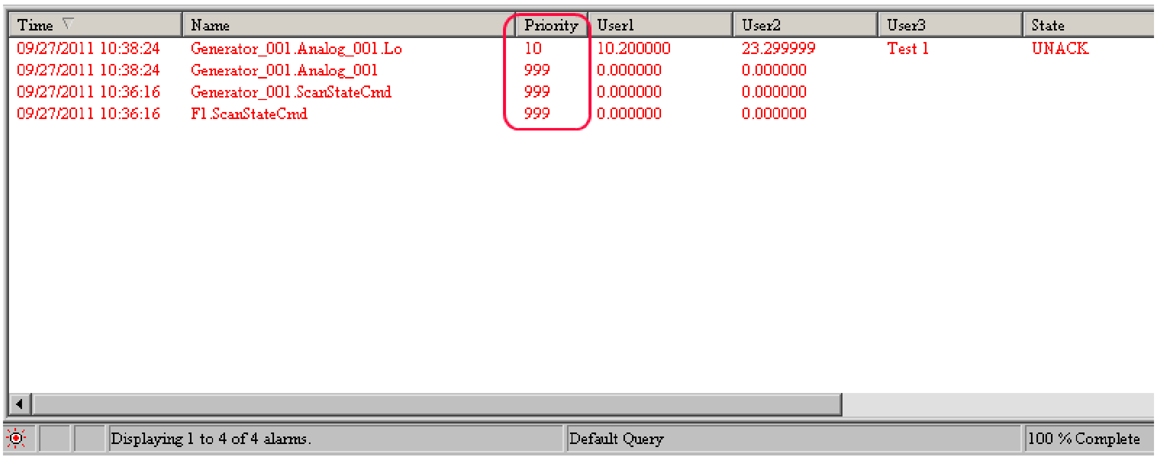
SetWW_Priority

Used to set **Wonderware** alarm system alarm and event **Priority** (valid range from 1 to 999).

Sample:

Following command sets Wonderware alarming system alarm priority to 10 for alarm Generator_001.Analog_001.Lo:

```
AlarmGateway_001.setWWPriority =  Me.Tagname + ".Analog_001.Lo=10";
```



Time	Name	Priority	User1	User2	User3	State
09/27/2011 10:38:24	Generator_001.Analog_001.Lo	10	10.200000	23.299999	Test 1	UNACK
09/27/2011 10:38:24	Generator_001.Analog_001	999	0.000000	0.000000		
09/27/2011 10:36:16	Generator_001.ScanStateCmd	999	0.000000	0.000000		
09/27/2011 10:36:16	F1.ScanStateCmd	999	0.000000	0.000000		

Displaying 1 to 4 of 4 alarms.

Default Query

100 % Complete

Note: value needs to be set before alarm is active.

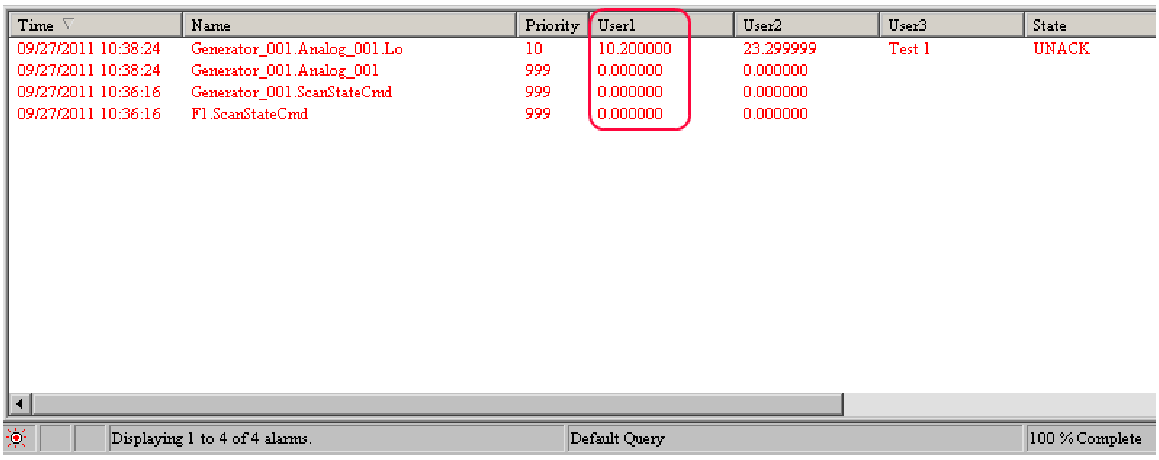
SetWW_User1

Used to set **Wonderware** alarm system User-defined **(User1)** float field.

Sample:

Following command sets Wonderware alarming system alarm User 1 field to 10.2 for alarm Generator_001.Analog_001.Lo:

```
AlarmGateway_001.setWW_User1 =  Me.Tagname + ".Analog_001.Lo=10.2";
```



Time	Name	Priority	User1	User2	User3	State
09/27/2011 10:38:24	Generator_001.Analog_001.Lo	10	10.200000	23.299999	Test 1	UNACK
09/27/2011 10:38:24	Generator_001.Analog_001	999	0.000000	0.000000		
09/27/2011 10:36:16	Generator_001.ScanStateCmd	999	0.000000	0.000000		
09/27/2011 10:36:16	F1.ScanStateCmd	999	0.000000	0.000000		

Displaying 1 to 4 of 4 alarms. Default Query 100 % Complete

Note: value needs to be set before alarm is active.

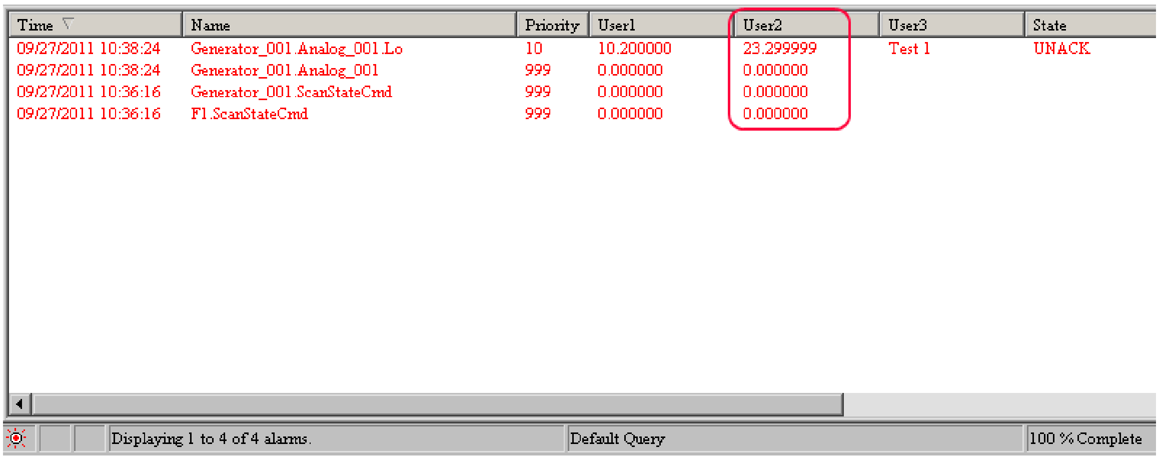
SetWW_User2

Used to set **Wonderware** alarm system User-defined **(User2)** float field.

Sample:

Following command sets Wonderware alarming system alarm User 2 field to 23.3 for alarm Generator_001.Analog_001.Lo:

```
AlarmGateway_001.setWW_User2 =  Me.Tagname + ".Analog_001.Lo=23.3";
```



Time	Name	Priority	User1	User2	User3	State
09/27/2011 10:38:24	Generator_001.Analog_001.Lo	10	10.200000	23.299999	Test 1	UNACK
09/27/2011 10:38:24	Generator_001.Analog_001	999	0.000000	0.000000		
09/27/2011 10:36:16	Generator_001.ScanStateCmd	999	0.000000	0.000000		
09/27/2011 10:36:16	F1.ScanStateCmd	999	0.000000	0.000000		

Displaying 1 to 4 of 4 alarms. Default Query 100 % Complete

Note: value needs to be set before alarm is active.

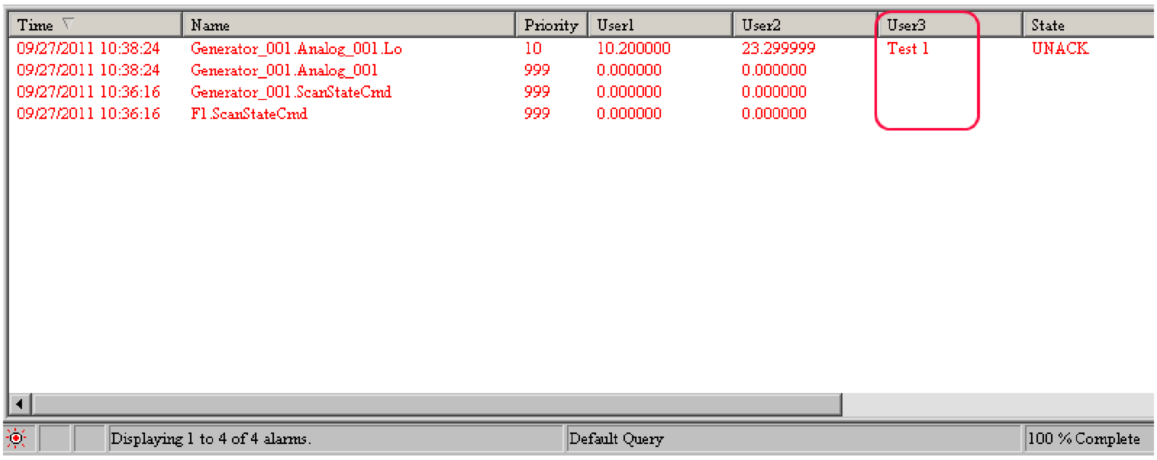
SetWW_User3

Used to set **Wonderware** alarm system User-defined **(User3)** string field.

Sample:

Following command sets Wonderware alarming system alarm User 3 field to ‘Test 1’ for alarm Generator_001.Analog_001.Lo:

```
AlarmGateway_001.setWW_User3 =  Me.Tagname + ".Analog_001.Lo=Test 1";
```



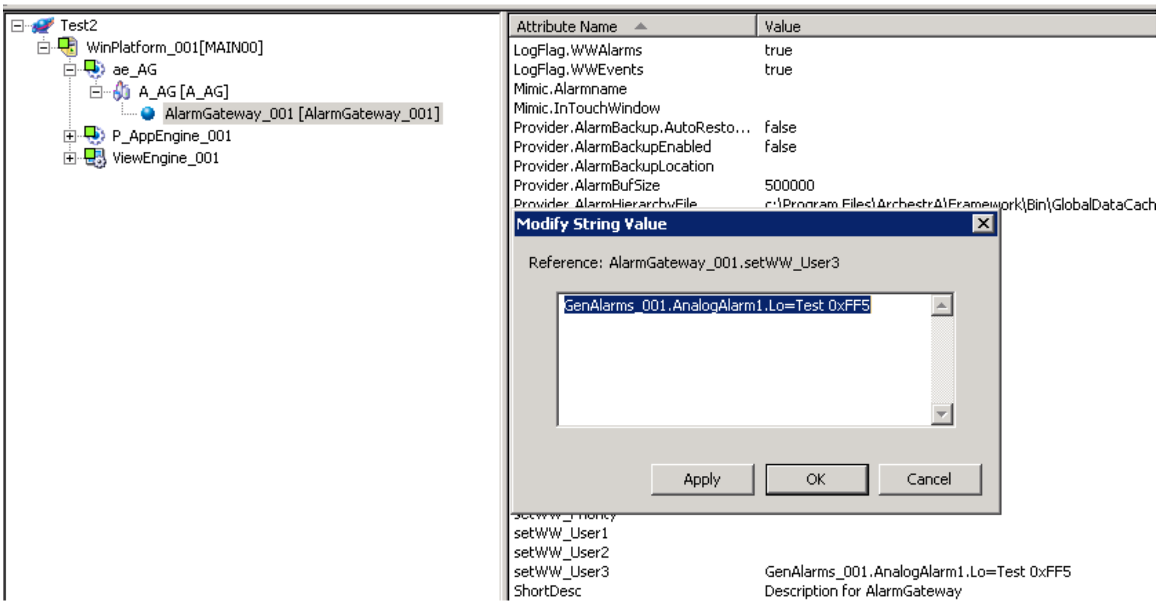
Time	Name	Priority	User1	User2	User3	State
09/27/2011 10:38:24	Generator_001.Analog_001.Lo	10	10.200000	23.299999	Test 1	UNACK
09/27/2011 10:38:24	Generator_001.Analog_001	999	0.000000	0.000000		
09/27/2011 10:36:16	Generator_001.ScanStateCmd	999	0.000000	0.000000		
09/27/2011 10:36:16	F1.ScanStateCmd	999	0.000000	0.000000		

Displaying 1 to 4 of 4 alarms.

Default Query

100 % Complete

Setting value from Object Viewer:



Attribute Name	Value
LogFlag.WWAlarms	true
LogFlag.WWEvents	true
Mimic.Alarmname	
Mimic.InTouchWindow	
Provider.AlarmBackup.AutoResto...	false
Provider.AlarmBackupEnabled	false
Provider.AlarmBackupLocation	
Provider.AlarmBufSize	500000
Provider.AlarmHierarchyFile	c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCach
setWW_Priority	
setWW_User1	
setWW_User2	
setWW_User3	GenAlarms_001.AnalogAlarm1.Lo=Test 0xFF5
ShortDesc	Description for AlarmGateway

Modify String Value

Reference: AlarmGateway_001.setWW_User3

GenAlarms_001.AnalogAlarm1.Lo=Test 0xFF5

Note: value needs to be set before alarm is active.

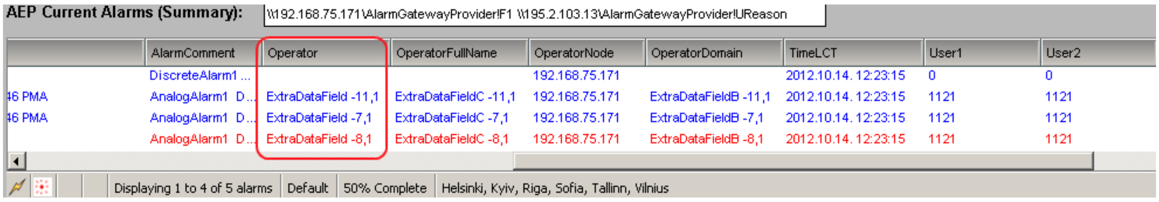
SetWW_Operator

Used to set **Wonderware** alarm system User-defined **(**Operator**)** string field.

Sample:

Following command sets Wonderware alarming system alarm Operator field to ‘Test 1’ for alarm Generator_001.Analog_001.Lo:

```
AlarmGateway_001.setWW_Operator =  Me.Tagname + ".Analog_001.Lo=Test 1";
```



AEP Current Alarms (Summary): \\192.168.75.171\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

	AlarmComment	Operator	OperatorFullName	OperatorNode	OperatorDomain	TimeLCT	User1	User2
	DiscreteAlarm1 ...			192.168.75.171		2012.10.14. 12:23:15	0	0
46 PMA	AnalogAlarm1 D...	ExtraDataField -11,1	ExtraDataFieldC -11,1	192.168.75.171	ExtraDataFieldB -11,1	2012.10.14. 12:23:15	1121	1121
46 PMA	AnalogAlarm1 D...	ExtraDataField -7,1	ExtraDataFieldC -7,1	192.168.75.171	ExtraDataFieldB -7,1	2012.10.14. 12:23:15	1121	1121
	AnalogAlarm1 D...	ExtraDataField -8,1	ExtraDataFieldC -8,1	192.168.75.171	ExtraDataFieldB -8,1	2012.10.14. 12:23:15	1121	1121

Displaying 1 to 4 of 5 alarms | Default | 50% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

Note: value needs to be set before alarm is active.

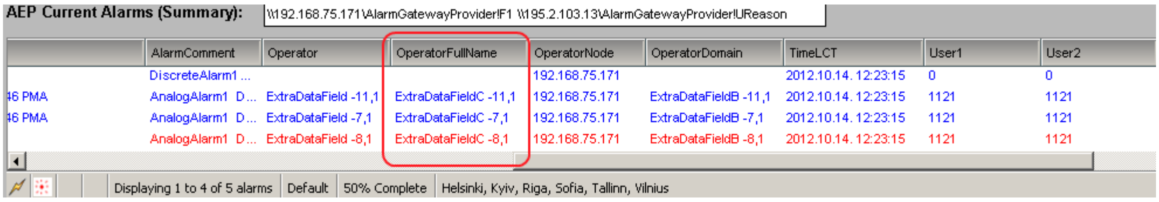
SetWW_OperatorFullName

Used to set **Wonderware** alarm system User-defined **(**OperatorFullName**)** string field.

Sample:

Following command sets Wonderware alarming system alarm OperatorFullName field to ‘Test 1’ for alarm Generator_001.Analog_001.Lo:

```
    AlarmGateway_001.setWW_OperatorFullName =  Me.Tagname +
".Analog_001.Lo=Test 1";
```



AEP Current Alarms (Summary): \\192.168.75.171\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

	AlarmComment	Operator	OperatorFullName	OperatorNode	OperatorDomain	TimeLCT	User1	User2
	DiscreteAlarm1 ...			192.168.75.171		2012.10.14. 12:23:15	0	0
46 PMA	AnalogAlarm1 D...	ExtraDataField -11,1	ExtraDataFieldC -11,1	192.168.75.171	ExtraDataFieldB -11,1	2012.10.14. 12:23:15	1121	1121
46 PMA	AnalogAlarm1 D...	ExtraDataField -7,1	ExtraDataFieldC -7,1	192.168.75.171	ExtraDataFieldB -7,1	2012.10.14. 12:23:15	1121	1121
	AnalogAlarm1 D...	ExtraDataField -8,1	ExtraDataFieldC -8,1	192.168.75.171	ExtraDataFieldB -8,1	2012.10.14. 12:23:15	1121	1121

Displaying 1 to 4 of 5 alarms | Default | 50% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

Note: value needs to be set before alarm is active.

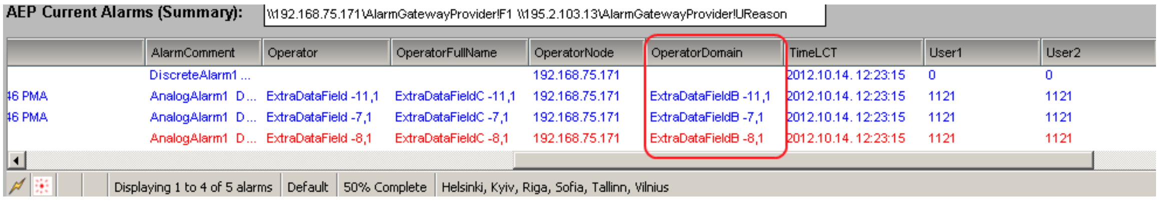
SetWW_OperatorDomain

Used to set Wonderware alarm system User-defined (OperatorDomain) string field.

Sample:

Following command sets Wonderware alarming system alarm Operator Domain field to ‘Test 1’ for alarm Generator_001.Analog_001.Lo:

```
        AlarmGateway_001.setWW_ OperatorDomain = Me.Tagname +
".Analog_001.Lo=Test 1";
```



AEP Current Alarms (Summary): \\192.168.75.171\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

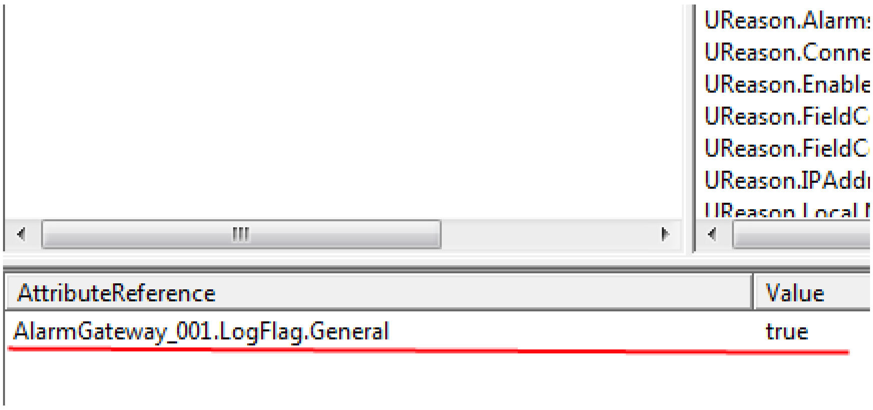
	AlarmComment	Operator	OperatorFullName	OperatorNode	OperatorDomain	TimeLCT	User1	User2
	DiscreteAlarm1 ...			192.168.75.171		2012.10.14. 12:23:15	0	0
46 PMA	AnalogAlarm1 D...	ExtraDataField -11,1	ExtraDataFieldC -11,1	192.168.75.171	ExtraDataFieldB -11,1	2012.10.14. 12:23:15	1121	1121
46 PMA	AnalogAlarm1 D...	ExtraDataField -7,1	ExtraDataFieldC -7,1	192.168.75.171	ExtraDataFieldB -7,1	2012.10.14. 12:23:15	1121	1121
	AnalogAlarm1 D...	ExtraDataField -8,1	ExtraDataFieldC -8,1	192.168.75.171	ExtraDataFieldB -8,1	2012.10.14. 12:23:15	1121	1121

Displaying 1 to 4 of 5 alarms | Default | 50% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

Note: value needs to be set before alarm is active.

Troubleshooting Wonderware alarm system custom attributes

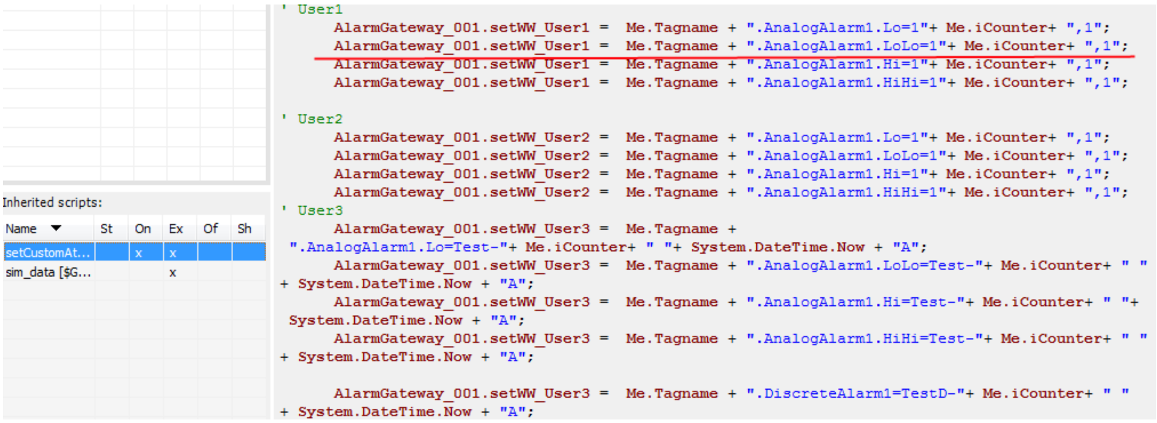
In case custom attribute is not set for alarm following steps can be performed to troubleshoot the issue.
Enable general alarm flag:



UReason.Alarm:
UReason.Conne
UReason.Enable
UReason.FieldC
UReason.FieldC
UReason.IPAddı
UReason.Local I

AttributeReference	Value
AlarmGateway_001.LogFlag.General	true

Set custom attribute e.g. from WAS script:

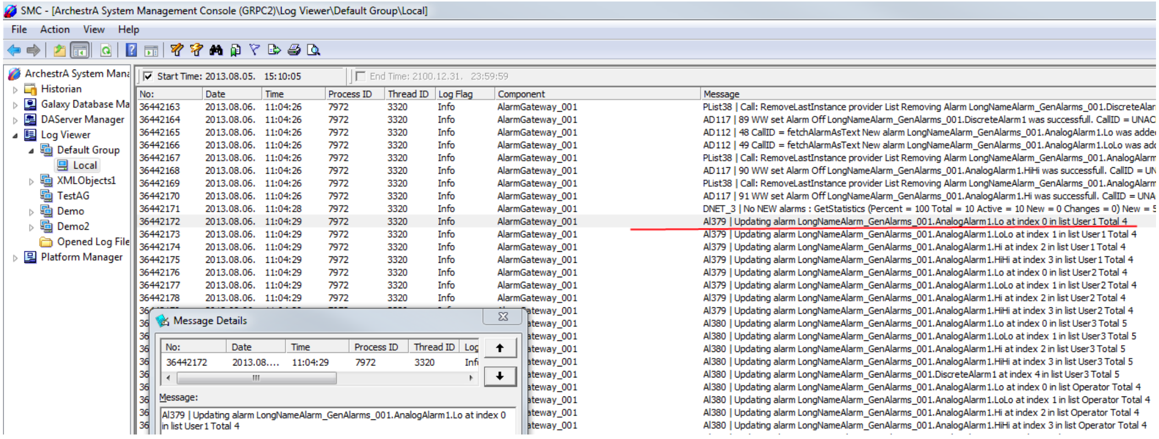


Inherited scripts:

Name	St	On	Ex	Of	Sh
setCustomAt...		x	x		
sim_data [$G...			x		

```
' User1
      AlarmGateway_001.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.Lo=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.LoLo=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.Hi=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.HiHi=1"+ Me.iCounter+ ",1";

' User2
      AlarmGateway_001.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.Lo=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.LoLo=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.Hi=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.HiHi=1"+ Me.iCounter+ ",1";
' User3
      AlarmGateway_001.setWW_User3 =  Me.Tagname +
 ".AnalogAlarm1.Lo=Test-"+ Me.iCounter+ " "+ System.DateTime.Now + "A";
      AlarmGateway_001.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.LoLo=Test-"+ Me.iCounter+ " "
+ System.DateTime.Now + "A";
      AlarmGateway_001.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.Hi=Test-"+ Me.iCounter+ " "+
 System.DateTime.Now + "A";
      AlarmGateway_001.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.HiHi=Test-"+ Me.iCounter+ " "
+ System.DateTime.Now + "A";

      AlarmGateway_001.setWW_User3 =  Me.Tagname + ".DiscreteAlarm1=TestD-"+ Me.iCounter+ " "
+ System.DateTime.Now + "A";
```

After script is executed, check if appropriate message (**AI379**) is logged in logger that indicates that custom attribute is set:



SMC - [ArchestrA System Management Console (GRPC2)\Log Viewer\Default Group\Local]

☑ Start Time: 2013.08.05. 15:10:05 ☐ End Time: 2100.12.31. 23:59:59

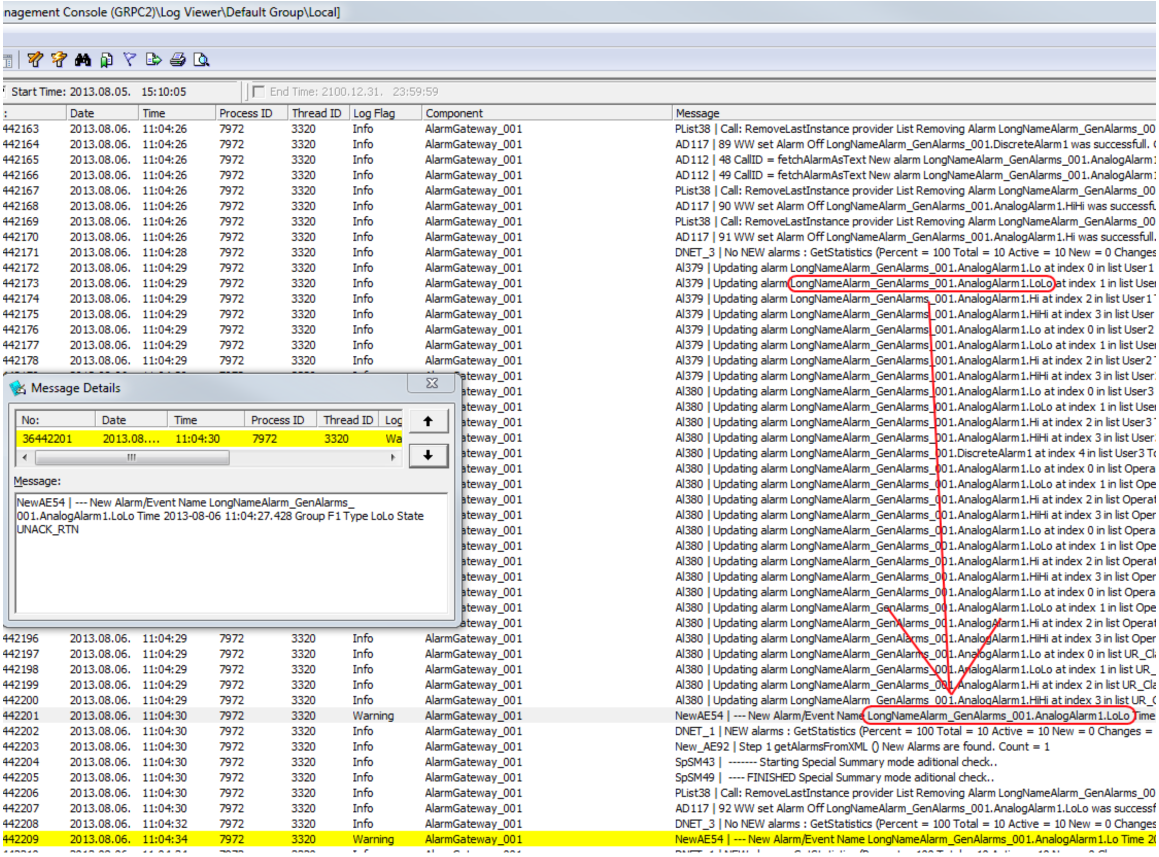
```
No:       Date         Time      Process ID  Thread ID  Log Flag  Component         Message
36442163  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001  PList38 | Call: RemoveLastInstance provider List Removing Alarm LongNameAlarm_GenAlarms_001.DiscreteAlar
36442164  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001  AD117 | 89 WW set Alarm Off LongNameAlarm_GenAlarms_001.DiscreteAlarm1 was successfull. CallID = UNAC
36442165  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001  AD112 | 48 CallID = fetchAlarmAsText New alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo was adde
36442166  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001  AD112 | 49 CallID = fetchAlarmAsText New alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo was ad
36442167  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001  PList38 | Call: RemoveLastInstance provider List Removing Alarm LongNameAlarm_GenAlarms_001.AnalogAlarm
36442168  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001  AD117 | 90 WW set Alarm Off LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi was successfull. CallID = UN
36442169  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001  PList38 | Call: RemoveLastInstance provider List Removing Alarm LongNameAlarm_GenAlarms_001.AnalogAlarm
36442170  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001  AD117 | 91 WW set Alarm Off LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi was successfull. CallID = UNA
36442171  2013.08.06.  11:04:28  7972        3320       Info      AlarmGateway_001  DNET_3 | No NEW alarms : GetStatistics (Percent = 100 Total = 10 Active = 10 New = 0 Changes = 0) New = 5
36442172  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001  AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list User1 Total 4
36442173  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001  AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list User1 Total 4
36442174  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001  AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list User1 Total 4
36442175  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001  AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list User1 Total 4
36442176  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001  AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list User2 Total 4
36442177  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001  AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list User2 Total 4
36442178  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001  AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list User2 Total 4
36                                                                ateway_001        AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list User2 Total 4
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list User3 Total 5
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list User3 Total 5
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list User3 Total 5
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list User3 Total 5
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.DiscreteAlarm1 at index 4 in list User3 Total 5
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list Operator Total 4
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list Operator Total 4
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list Operator Total 4
36                                                                ateway_001        AI380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list Operator Total 4
```

Message Details

```
No:       Date        Time      Process ID  Thread ID  Log
36442172  2013.08.... 11:04:29  7972        3320       Inf
```

Message:
AI379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list User1 Total 4

Rise alarm and check if Alarm name is the same as alarm name defined in set command:



nagement Console (GRPC2)\Log Viewer\Default Group\Local]
Start Time: 2013.08.05. 15:10:05
□ End Time: 2100.12.31. 23:59:59

```
:       Date         Time      Process ID  Thread ID  Log Flag  Component          Message
442163  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001   PList38 | Call: RemoveLastInstance provider List Removing Alarm LongNameAlarm_GenAlarms_00
442164  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001   AD117 | 89 WW set Alarm Off LongNameAlarm_GenAlarms_001.DiscreteAlarm1 was successfull. (
442165  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001   AD112 | 48 CallID = fetchAlarmAsText New alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1
442166  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001   AD112 | 49 CallID = fetchAlarmAsText New alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1
442167  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001   PList38 | Call: RemoveLastInstance provider List Removing Alarm LongNameAlarm_GenAlarms_00
442168  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001   AD117 | 90 WW set Alarm Off LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi was successfu
442169  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001   PList38 | Call: RemoveLastInstance provider List Removing Alarm LongNameAlarm_GenAlarms_00
442170  2013.08.06.  11:04:26  7972        3320       Info      AlarmGateway_001   AD117 | 91 WW set Alarm Off LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi was successfull.
442171  2013.08.06.  11:04:28  7972        3320       Info      AlarmGateway_001   DNET_3 | No NEW alarms : GetStatistics (Percent = 100 Total = 10 Active = 10 New = 0 Changes
442172  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list User1
442173  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list User
442174  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list User1
442175  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list User
442176  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list User2
442177  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list User
442178  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list User2
                                                                      ateway_001   Al379 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list User
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list User3
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list User
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list User3
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list User
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.DiscreteAlarm1 at index 4 in list User3 T
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list Opera
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list Ope
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list Operat
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list Oper
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list Opera
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list Ope
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list Operat
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list Oper
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list Opera
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list Ope
                                                                      ateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list Operat
442196  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list Oper
442197  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo at index 0 in list UR_Cl
442198  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo at index 1 in list UR_
442199  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.Hi at index 2 in list UR_Cla
442200  2013.08.06.  11:04:29  7972        3320       Info      AlarmGateway_001   Al380 | Updating alarm LongNameAlarm_GenAlarms_001.AnalogAlarm1.HiHi at index 3 in list UR_(
442201  2013.08.06.  11:04:30  7972        3320       Warning   AlarmGateway_001   NewAE54 | --- New Alarm/Event Name LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo Time
442202  2013.08.06.  11:04:30  7972        3320       Info      AlarmGateway_001   DNET_1 | NEW alarms : GetStatistics (Percent = 100 Total = 10 Active = 10 New = 0 Changes =
442203  2013.08.06.  11:04:30  7972        3320       Info      AlarmGateway_001   New_AE92 | Step 1 getAlarmsFromXML () New Alarms are found. Count = 1
442204  2013.08.06.  11:04:30  7972        3320       Info      AlarmGateway_001   SpSM43 |  ------- Starting Special Summary mode aditional check..
442205  2013.08.06.  11:04:30  7972        3320       Info      AlarmGateway_001   SpSM49 |  ---- FINISHED Special Summary mode aditional check..
442206  2013.08.06.  11:04:30  7972        3320       Info      AlarmGateway_001   PList38 | Call: RemoveLastInstance provider List Removing Alarm LongNameAlarm_GenAlarms_00
442207  2013.08.06.  11:04:30  7972        3320       Info      AlarmGateway_001   AD117 | 92 WW set Alarm Off LongNameAlarm_GenAlarms_001.AnalogAlarm1.LoLo was successf
442208  2013.08.06.  11:04:32  7972        3320       Info      AlarmGateway_001   DNET_3 | No NEW alarms : GetStatistics (Percent = 100 Total = 10 Active = 10 New = 0 Changes
442209  2013.08.06.  11:04:34  7972        3320       Warning   AlarmGateway_001   NewAE54 | --- New Alarm/Event Name LongNameAlarm_GenAlarms_001.AnalogAlarm1.Lo Time 2(
```

Message Details

```
No:       Date         Time      Process ID  Thread ID  Log
36442201  2013.08....  11:04:30  7972        3320       Wa
```

Message:

```
NewAE54 | --- New Alarm/Event Name LongNameAlarm_GenAlarms_
001.AnalogAlarm1.LoLo Time 2013-08-06 11:04:27.428 Group F1 Type LoLo State
UNACK_RTN
```

Alarm Name mentioned in messages Al379 and NewAE54 must match for function to work properly.

UReason alarm system custom attributes

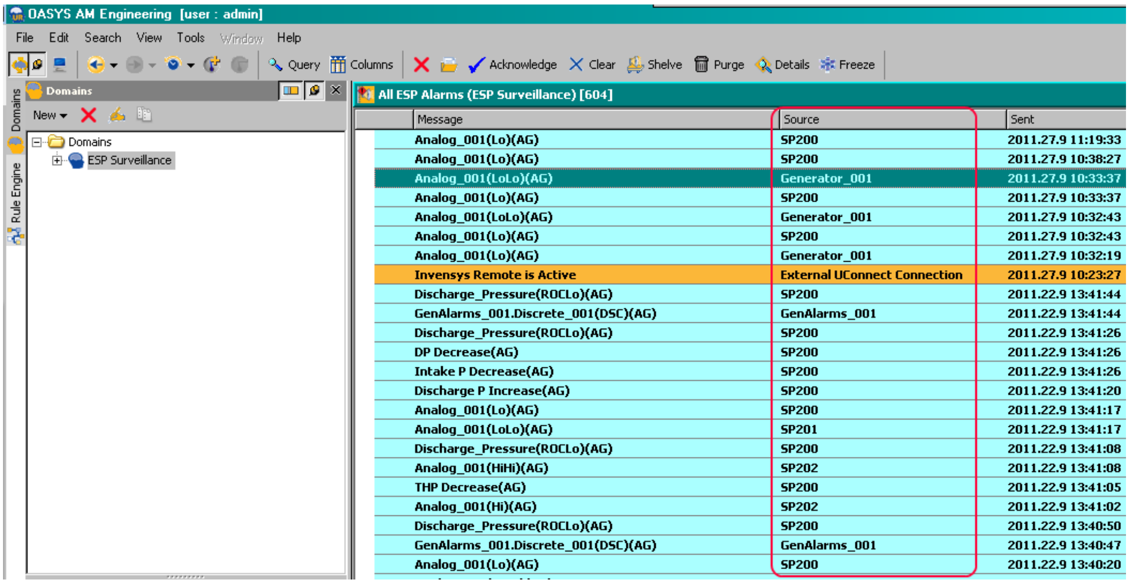
setUR_Source

Used to set **UReason** alarm system alarm **Source** property.

Sample:

Following command sets UReason alarm parameter Source to ‘SP200’ for alarm Generator_001.Analog_001.Lo:

```
AlarmGateway_001.setURSource = Me.Tagname + ".Analog_001.Lo=SP200";
```


OASYS AM Engineering [user : admin]
File Edit Search View Tools Window Help
Query Columns Acknowledge Clear Shelve Purge Details Freeze
Domains
Domains
New
Domains
ESP Surveillance
Rule Engine

All ESP Alarms (ESP Surveillance) [604]

Message	Source	Sent
Analog_001(Lo)(AG)	SP200	2011.27.9 11:19:33
Analog_001(Lo)(AG)	SP200	2011.27.9 10:38:27
Analog_001(LoLo)(AG)	Generator_001	2011.27.9 10:33:37
Analog_001(Lo)(AG)	SP200	2011.27.9 10:33:37
Analog_001(LoLo)(AG)	Generator_001	2011.27.9 10:32:43
Analog_001(Lo)(AG)	SP200	2011.27.9 10:32:43
Analog_001(Lo)(AG)	Generator_001	2011.27.9 10:32:19
Invensys Remote is Active	External UConnect Connection	2011.27.9 10:23:27
Discharge_Pressure(ROCLo)(AG)	SP200	2011.22.9 13:41:44
GenAlarms_001.Discrete_001(DSC)(AG)	GenAlarms_001	2011.22.9 13:41:44
Discharge_Pressure(ROCLo)(AG)	SP200	2011.22.9 13:41:26
DP Decrease(AG)	SP200	2011.22.9 13:41:26
Intake P Decrease(AG)	SP200	2011.22.9 13:41:26
Discharge P Increase(AG)	SP200	2011.22.9 13:41:20
Analog_001(Lo)(AG)	SP200	2011.22.9 13:41:17
Analog_001(LoLo)(AG)	SP201	2011.22.9 13:41:17
Discharge_Pressure(ROCLo)(AG)	SP200	2011.22.9 13:41:08
Analog_001(HiHi)(AG)	SP202	2011.22.9 13:41:08
THP Decrease(AG)	SP200	2011.22.9 13:41:05
Analog_001(Hi)(AG)	SP202	2011.22.9 13:41:02
Discharge_Pressure(ROCLo)(AG)	SP200	2011.22.9 13:40:50
GenAlarms_001.Discrete_001(DSC)(AG)	GenAlarms_001	2011.22.9 13:40:47
Analog_001(Lo)(AG)	SP200	2011.22.9 13:40:20

setUR_Class

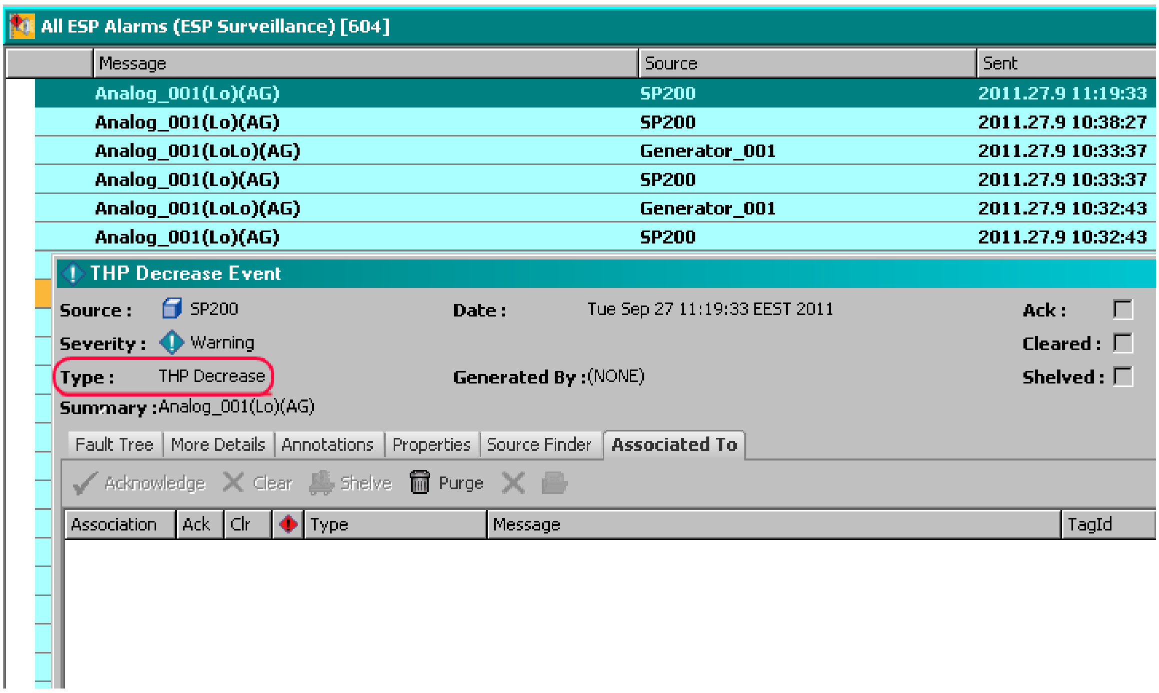
Used to set **UReason** alarm system alarm **Type** property.

Note: Class is a critical parameter for UReason alarm system, all alarms/events that are intended for use in UReason alarm system must have the defined valid class.

Sample:

Following command sets UReason alarm Class (Type) property to ‘THP Decrease’ for alarm Generator_001.Analog_001.Lo:

```
AlarmGateway_001.setURClass = Me.Tagname + ".Analog_001.Lo=THP Decrease";
```



All ESP Alarms (ESP Surveillance) [604]

Message	Source	Sent
Analog_001(Lo)(AG)	SP200	2011.27.9 11:19:33
Analog_001(Lo)(AG)	SP200	2011.27.9 10:38:27
Analog_001(LoLo)(AG)	Generator_001	2011.27.9 10:33:37
Analog_001(Lo)(AG)	SP200	2011.27.9 10:33:37
Analog_001(LoLo)(AG)	Generator_001	2011.27.9 10:32:43
Analog_001(Lo)(AG)	SP200	2011.27.9 10:32:43

THP Decrease Event

Source : SP200
Date : Tue Sep 27 11:19:33 EEST 2011
Ack : ☐
Severity : Warning
Cleared : ☐
Type : THP Decrease
Generated By :(NONE)
Shelved : ☐
Summary :Analog_001(Lo)(AG)

Association	Ack	Clr		Type	Message	TagId

setUR_Priority

Used to set **UReason** alarm system alarm **Severity** property.

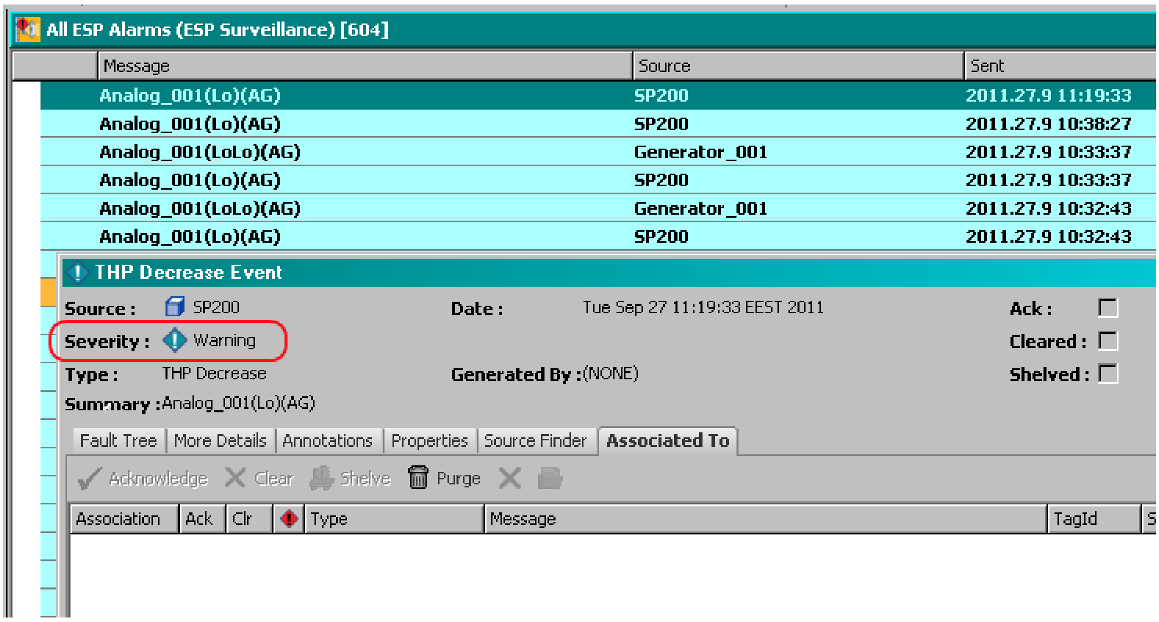
Sample:

Following command sets UReason alarm **Severity** property to 5 (Warning) for alarm Generator_001.Discrete_001:

```
AlarmGateway_001.setUR_Priority =  Me.Tagname + ".Discrete_001=5";
```

Note: UReason alarm system has following alarm/event priorities:

1 - Critical
2 – High Severity
3 – Medium Severity
4 - Low Severity
5 - Warning
6 – Information



All ESP Alarms (ESP Surveillance) [604]

Message	Source	Sent
Analog_001(Lo)(AG)	SP200	2011.27.9 11:19:33
Analog_001(Lo)(AG)	SP200	2011.27.9 10:38:27
Analog_001(LoLo)(AG)	Generator_001	2011.27.9 10:33:37
Analog_001(Lo)(AG)	SP200	2011.27.9 10:33:37
Analog_001(LoLo)(AG)	Generator_001	2011.27.9 10:32:43
Analog_001(Lo)(AG)	SP200	2011.27.9 10:32:43

THP Decrease Event

Source : SP200
Date : Tue Sep 27 11:19:33 EEST 2011
Ack : □
Severity : Warning
Cleared : □
Type : THP Decrease
Generated By :(NONE)
Shelved : □
Summary :Analog_001(Lo)(AG)

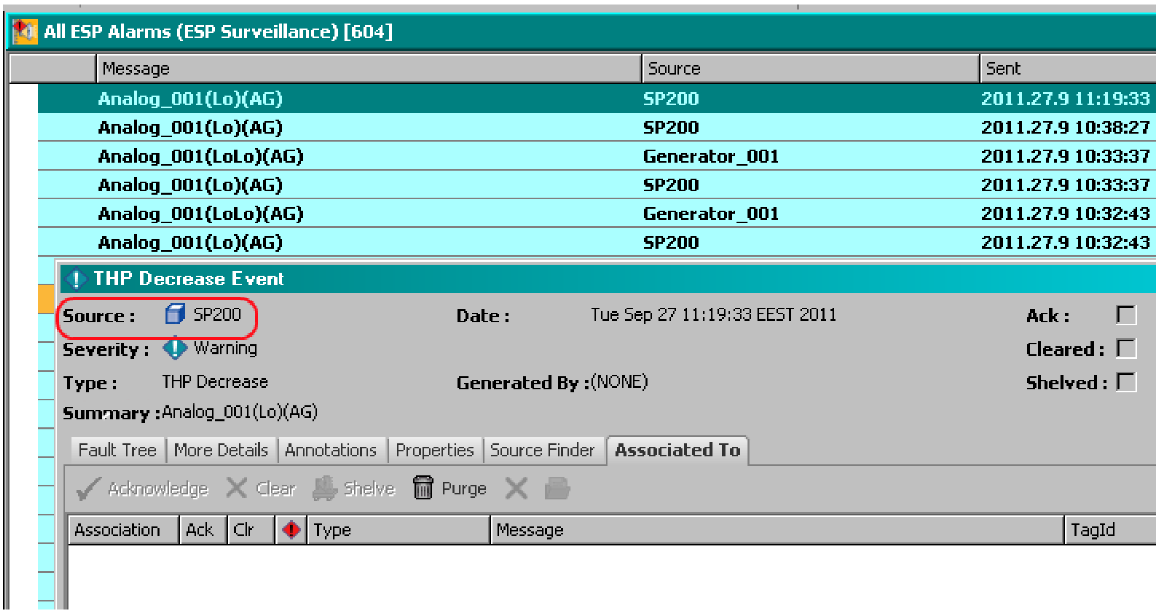
setUR_Source

Used to set **UReason** alarm system alarm **Source** property.

Sample:

Following command sets UReason alarm **Source** property to Me.Tagname (Generator_001) value for alarm Generator_001.Analog_001.Lo:

```
AlarmGateway_001.setUR_Source = Me.Tagname + ".Analog_001.Lo=" + Me.Tagname;
```



All ESP Alarms (ESP Surveillance) [604]

Message	Source	Sent
Analog_001(Lo)(AG)	SP200	2011.27.9 11:19:33
Analog_001(Lo)(AG)	SP200	2011.27.9 10:38:27
Analog_001(LoLo)(AG)	Generator_001	2011.27.9 10:33:37
Analog_001(Lo)(AG)	SP200	2011.27.9 10:33:37
Analog_001(LoLo)(AG)	Generator_001	2011.27.9 10:32:43
Analog_001(Lo)(AG)	SP200	2011.27.9 10:32:43

THP Decrease Event

Source : SP200

Severity : Warning

Type : THP Decrease

Summary :Analog_001(Lo)(AG)

Date : Tue Sep 27 11:19:33 EEST 2011

Generated By :(NONE)

Ack : □

Cleared : □

Shelved : □

setUR_MimicWindow

Used to set **UReason** alarm system alarm **MimicWindow** property.

For details see **Alarm Gateway UReason Mimic functionality** section.

Sample:
Following command sets **UReason** alarm MimicWindow property:

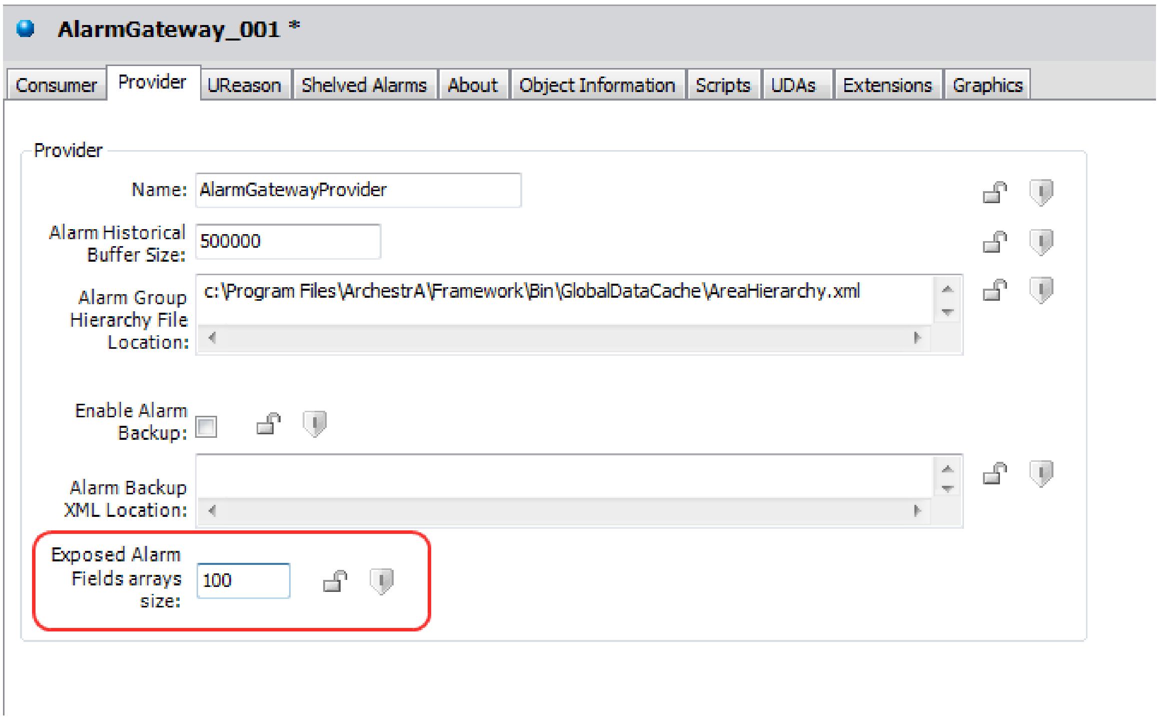
```
AlarmGateway_001.setUR_MimicWindow =  Me.Tagname + ".Analog_001.Lo=SP200";
```

Exposed Alarm Fields

Exposed Alarm Field arrays are used to expose specific Alarm information (fields) as object attributes that can be used in WAS scripting.

Following configuration is needed to setup the Exposed Alarm Fields:

1) In object editor, open the Provider tab
   a) Enable Exposed Alarm Fields feature;
   b) Set Exposed Alarm Fields arrays length:



Provider

Name: AlarmGatewayProvider

Alarm Historical Buffer Size: 500000

Alarm Group Hierarchy File Location: c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCache\AreaHierarchy.xml

Enable Alarm Backup: □

Alarm Backup XML Location:

Exposed Alarm Fields arrays size: 100

   c) Deploy **Alarm Gateway** object.

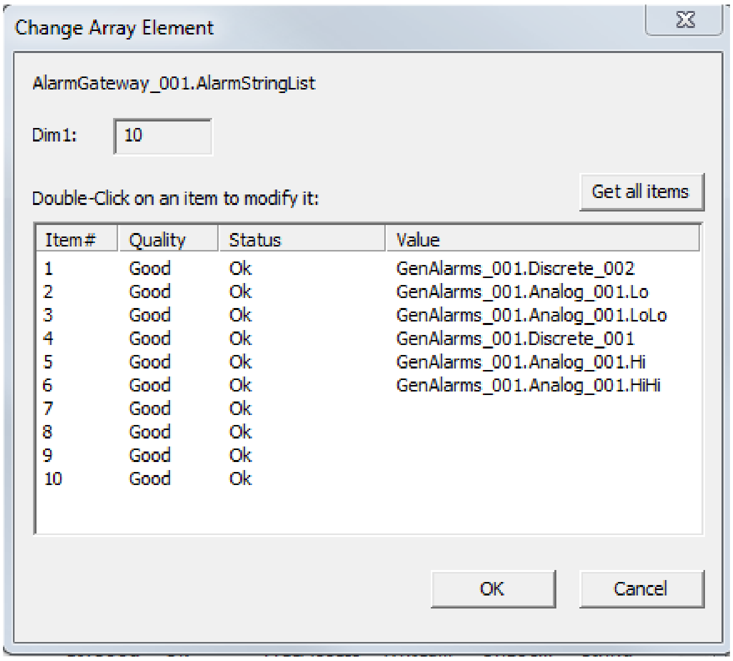
   d) Define exposed alarm configuration XML:

XML structure:
Root: <AlarmConfiguration>
Element:
Name: Alarm

Attributes:

- Name – Alarm name – **alarm names are case sensitive.**
  Note: Also wildcards are supported, following samples are correct:

  1) GenAlarm*
  Adds to exposed list all Alarms that name starts with GenAlarm:



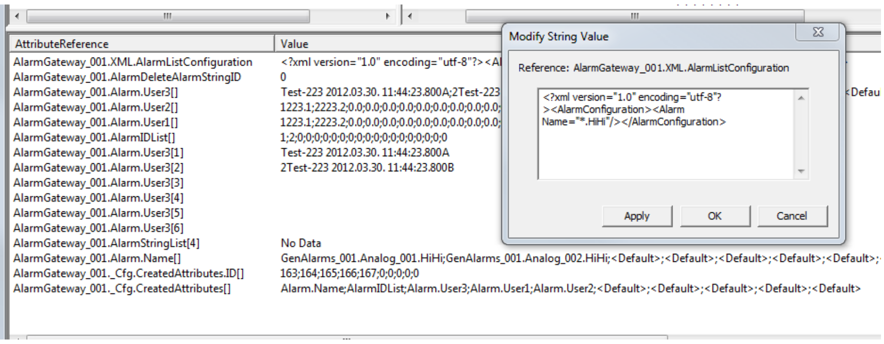
Change Array Element

AlarmGateway_001.AlarmStringList

Dim1: 10

Double-Click on an item to modify it:

Item#	Quality	Status	Value
1	Good	Ok	GenAlarms_001.Discrete_002
2	Good	Ok	GenAlarms_001.Analog_001.Lo
3	Good	Ok	GenAlarms_001.Analog_001.LoLo
4	Good	Ok	GenAlarms_001.Discrete_001
5	Good	Ok	GenAlarms_001.Analog_001.Hi
6	Good	Ok	GenAlarms_001.Analog_001.HiHi
7	Good	Ok	
8	Good	Ok	
9	Good	Ok	
10	Good	Ok	



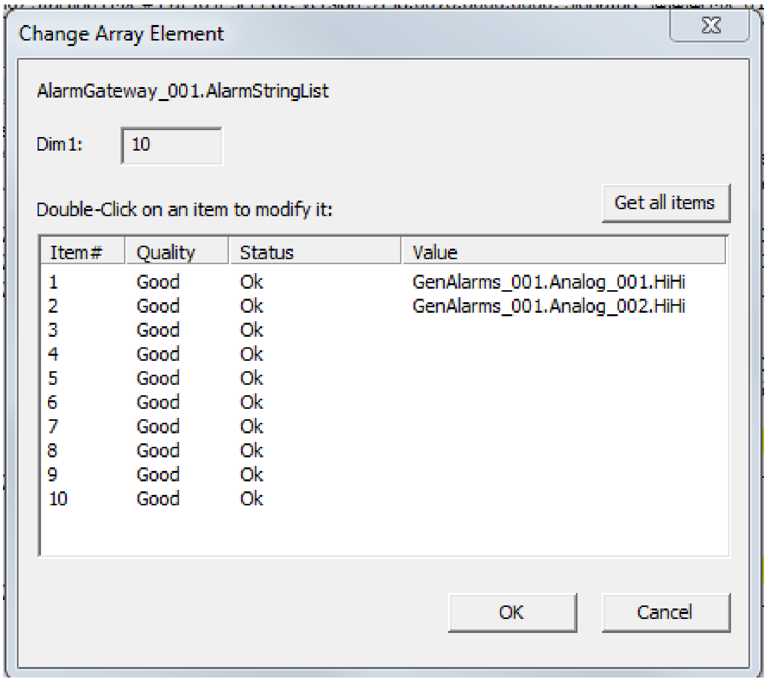
AttributeReference	Value
AlarmGateway_001.XML.AlarmListConfiguration	<?xml version="1.0" encoding="utf-8"?><Al
AlarmGateway_001.AlarmDeleteAlarmStringID	0
AlarmGateway_001.Alarm.User3[]	Test-223 2012.03.30. 11:44:23.800A;2Test-223
AlarmGateway_001.Alarm.User2[]	1223.1;2223.2;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;
AlarmGateway_001.Alarm.User1[]	1223.1;2223.2;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;
AlarmGateway_001.AlarmIDList[]	1;2;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0
AlarmGateway_001.Alarm.User3[1]	Test-223 2012.03.30. 11:44:23.800A
AlarmGateway_001.Alarm.User3[2]	2Test-223 2012.03.30. 11:44:23.800B
AlarmGateway_001.Alarm.User3[3]	
AlarmGateway_001.Alarm.User3[4]	
AlarmGateway_001.Alarm.User3[5]	
AlarmGateway_001.Alarm.User3[6]	
AlarmGateway_001.AlarmStringList[4]	No Data
AlarmGateway_001.Alarm.Name[]	GenAlarms_001.Analog_001.HiHi;GenAlarms_001.Analog_002.HiHi;<Default>;<Default>;<Default>;<Default>;<Default>;
AlarmGateway_001._Cfg.CreatedAttributes.ID[]	163;164;165;166;167;0;0;0;0;0
AlarmGateway_001._Cfg.CreatedAttributes[]	Alarm.Name;AlarmIDList;Alarm.User3;Alarm.User1;Alarm.User2;<Default>;<Default>;<Default>;<Default>;<Default>

Modify String Value

Reference: AlarmGateway_001.XML.AlarmListConfiguration

```
<?xml version="1.0" encoding="utf-8"?
><AlarmConfiguration><Alarm
Name="*.HiHi"/></AlarmConfiguration>
```

2) *HiHi - Adds to exposed list all Alarms that name ends with HiHi – all HiHi priority alarms.



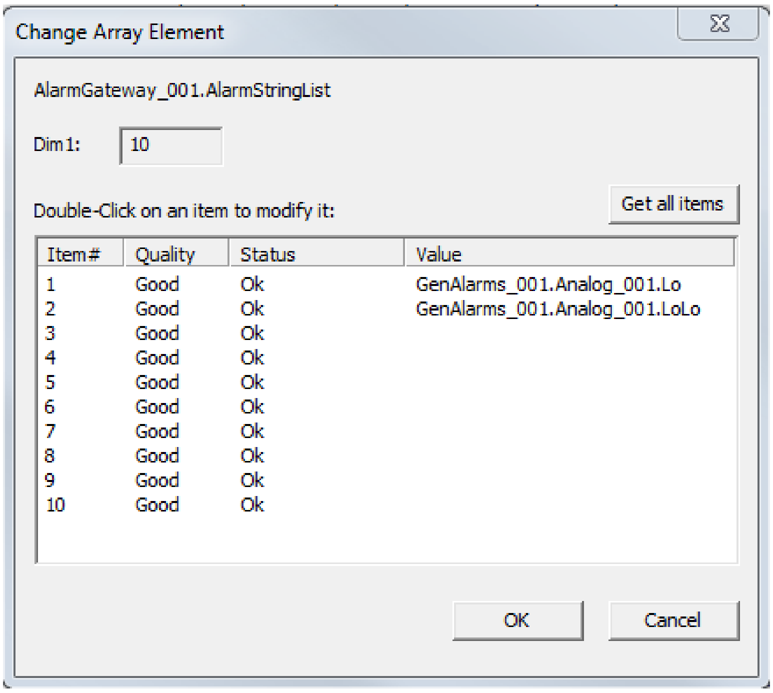
AlarmGateway_001.AlarmStringList

Dim1: 10

Double-Click on an item to modify it:

Item#	Quality	Status	Value
1	Good	Ok	GenAlarms_001.Analog_001.HiHi
2	Good	Ok	GenAlarms_001.Analog_002.HiHi
3	Good	Ok	
4	Good	Ok	
5	Good	Ok	
6	Good	Ok	
7	Good	Ok	
8	Good	Ok	
9	Good	Ok	
10	Good	Ok	

3) *Value1.Lo*



AlarmGateway_001.AlarmStringList

Dim1: 10

Double-Click on an item to modify it:

Item#	Quality	Status	Value
1	Good	Ok	GenAlarms_001.Analog_001.Lo
2	Good	Ok	GenAlarms_001.Analog_001.LoLo
3	Good	Ok	
4	Good	Ok	
5	Good	Ok	
6	Good	Ok	
7	Good	Ok	
8	Good	Ok	
9	Good	Ok	
10	Good	Ok	

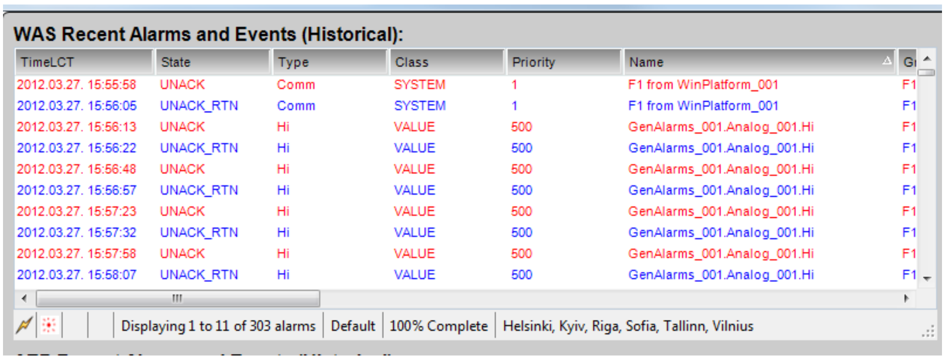
- ID – used defined ID - is used to delete entries from arrays by setting value to **AlarmDeleteAlarmStringID** attribute**.**

```
 <AlarmConfiguration>
   <Alarm Name="Alarm_300.Value1.Lolo" ID=”10”/>
   <Alarm Name="Alarm1*" ID=”11”/>
</AlarmConfiguration>
```

Note: For testing proposes, in WAS following sample alarms are defined Analog_001 (LoLo,Lo,Hi,HiHi), Discreate_001, Discreate_002

e) set it to Alarm Gateway Big String **XML.AlarmListConfiguration** attribute.

f) When defined alarm raises:

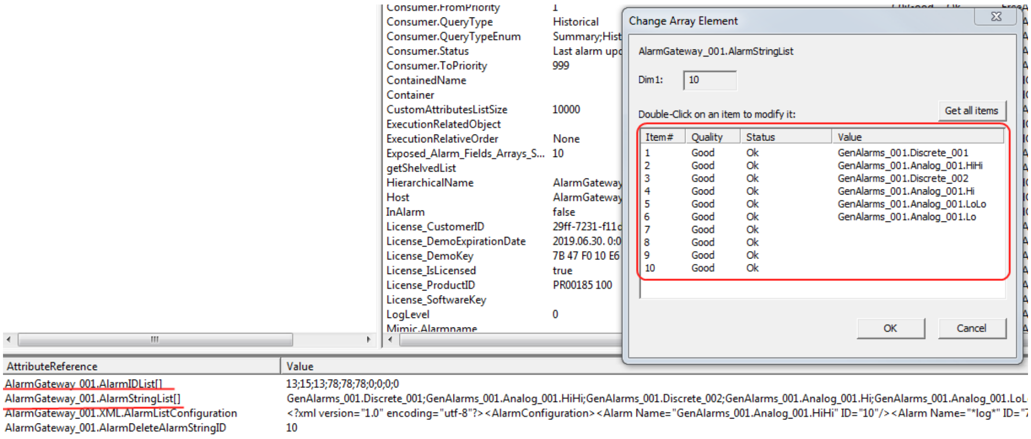


WAS Recent Alarms and Events (Historical):

TimeLCT	State	Type	Class	Priority	Name	G
2012.03.27. 15:55:58	UNACK	Comm	SYSTEM	1	F1 from WinPlatform_001	F1
2012.03.27. 15:56:05	UNACK_RTN	Comm	SYSTEM	1	F1 from WinPlatform_001	F1
2012.03.27. 15:56:13	UNACK	Hi	VALUE	500	GenAlarms_001.Analog_001.Hi	F1
2012.03.27. 15:56:22	UNACK_RTN	Hi	VALUE	500	GenAlarms_001.Analog_001.Hi	F1
2012.03.27. 15:56:48	UNACK	Hi	VALUE	500	GenAlarms_001.Analog_001.Hi	F1
2012.03.27. 15:56:57	UNACK_RTN	Hi	VALUE	500	GenAlarms_001.Analog_001.Hi	F1
2012.03.27. 15:57:23	UNACK	Hi	VALUE	500	GenAlarms_001.Analog_001.Hi	F1
2012.03.27. 15:57:32	UNACK_RTN	Hi	VALUE	500	GenAlarms_001.Analog_001.Hi	F1
2012.03.27. 15:57:58	UNACK	Hi	VALUE	500	GenAlarms_001.Analog_001.Hi	F1
2012.03.27. 15:58:07	UNACK_RTN	Hi	VALUE	500	GenAlarms_001.Analog_001.Hi	F1

Displaying 1 to 11 of 303 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

g) Exposed Alarm Field arrays are filled with defined Alarm Fields that are defined in **XML.AlarmListConfiguration** attribute:



Consumer.FromPriority	1
Consumer.QueryType	Historical
Consumer.QueryTypeEnum	Summary;Hist
Consumer.Status	Last alarm upd
Consumer.ToPriority	999
ContainedName	
Container	
CustomAttributesListSize	10000
ExecutionRelatedObject	
ExecutionRelativeOrder	None
Exposed_Alarm_Fields_Arrays_S...	10
getShelvedList	
HierarchicalName	AlarmGateway
Host	AlarmGateway
InAlarm	false
License_CustomerID	29ff-7231-f11c
License_DemoExpirationDate	2019.06.30. 0:0
License_DemoKey	7B 47 F0 10 E6
License_IsLicensed	true
License_ProductID	PR00185 100
License_SoftwareKey	
LogLevel	0
Mimic.Alarmname	

Change Array Element

AlarmGateway_001.AlarmStringList

Dim1: 10

Double-Click on an item to modify it:

Item#	Quality	Status	Value
1	Good	Ok	GenAlarms_001.Discrete_001
2	Good	Ok	GenAlarms_001.Analog_001.HiHi
3	Good	Ok	GenAlarms_001.Discrete_002
4	Good	Ok	GenAlarms_001.Analog_001.Hi
5	Good	Ok	GenAlarms_001.Analog_001.LoLo
6	Good	Ok	GenAlarms_001.Analog_001.Lo
7	Good	Ok	
8	Good	Ok	
9	Good	Ok	
10	Good	Ok	

AttributeReference	Value
AlarmGateway_001.AlarmIDList[]	13;15;13;78;78;78;0;0;0;0
AlarmGateway_001.AlarmStringList[]	GenAlarms_001.Discrete_001;GenAlarms_001.Analog_001.HiHi;GenAlarms_001.Discrete_002;GenAlarms_001.Analog_001.Hi;GenAlarms_001.Analog_001.LoL
AlarmGateway_001.XML.AlarmListConfiguration	<?xml version="1.0" encoding="utf-8"?><AlarmConfiguration><Alarm Name="GenAlarms_001.Analog_001.HiHi" ID="10"/><Alarm Name="*log*" ID="7
AlarmGateway_001.AlarmDeleteAlarmStringID	10

Configuration attributes

XML.AlarmListConfiguration

Stores Alarm XML configuration

XML sample:

```
<AlarmConfiguration>
        <Alarm Name="*.HiHi" ID ="10"/>
</AlarmConfiguration>
```

Sample WAS script:

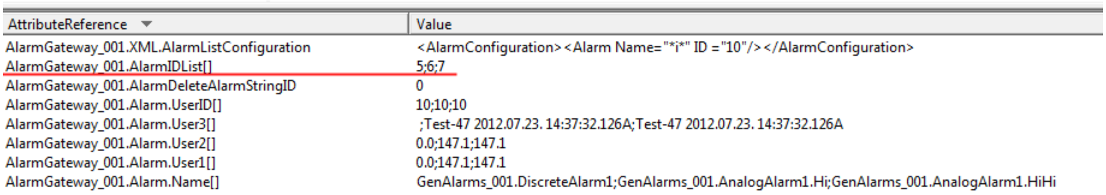
```
   AlarmGateway_001.XML.AlarmListConfiguration =
   "<AlarmConfiguration>" +
   "<Alarm Name=""*.HiHi"" ID =""10""/>"+
"</AlarmConfiguration>";
```

AlarmIDList

dataType: int array

Array size: is defined in editor ExposedAlarmFields.ArraysSize attribute.

Description:
Array of Alarm Gateway generated exposed alarm unique ID that can be used to identify each exposed alarm.

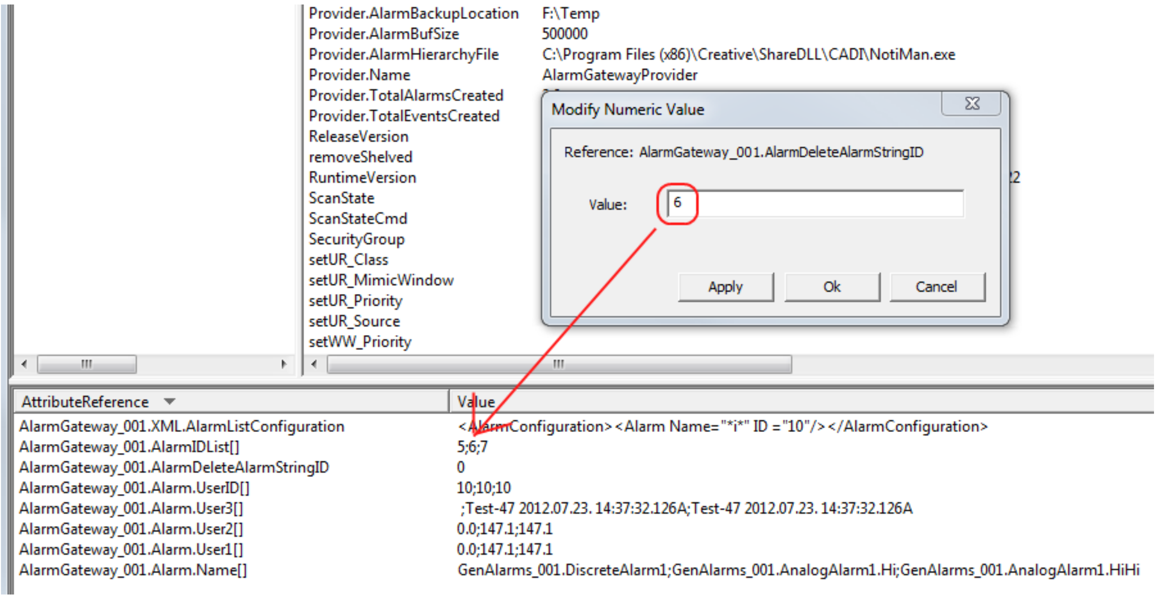


AttributeReference	Value
AlarmGateway_001.XML.AlarmListConfiguration	<AlarmConfiguration><Alarm Name="*i*" ID ="10"/></AlarmConfiguration>
AlarmGateway_001.AlarmIDList[]	5;6;7
AlarmGateway_001.AlarmDeleteAlarmStringID	0
AlarmGateway_001.Alarm.UserID[]	10;10;10
AlarmGateway_001.Alarm.User3[]	;Test-47 2012.07.23. 14:37:32.126A;Test-47 2012.07.23. 14:37:32.126A
AlarmGateway_001.Alarm.User2[]	0.0;147.1;147.1
AlarmGateway_001.Alarm.User1[]	0.0;147.1;147.1
AlarmGateway_001.Alarm.Name[]	GenAlarms_001.DiscreteAlarm1;GenAlarms_001.AnalogAlarm1.Hi;GenAlarms_001.AnalogAlarm1.HiHi

AlarmDeleteAlarmStringID

dataType: int

Description:
Deletes entry from Exposed Alarm Fields that matches specified alarm ID in **AlarmIDList** array.



Provider.AlarmBackupLocation	F:\Temp
Provider.AlarmBufSize	500000
Provider.AlarmHierarchyFile	C:\Program Files (x86)\Creative\ShareDLL\CADI\NotiMan.exe
Provider.Name	AlarmGatewayProvider
Provider.TotalAlarmsCreated	
Provider.TotalEventsCreated	
ReleaseVersion	
removeShelved	
RuntimeVersion	
ScanState	
ScanStateCmd	
SecurityGroup	
setUR_Class	
setUR_MimicWindow	
setUR_Priority	
setUR_Source	
setWW_Priority	

Modify Numeric Value

Reference: AlarmGateway_001.AlarmDeleteAlarmStringID

Value: 6

AttributeReference	Value
AlarmGateway_001.XML.AlarmListConfiguration	<AlarmConfiguration><Alarm Name="*i*" ID ="10"/></AlarmConfiguration>
AlarmGateway_001.AlarmIDList[]	5;6;7
AlarmGateway_001.AlarmDeleteAlarmStringID	0
AlarmGateway_001.Alarm.UserID[]	10;10;10
AlarmGateway_001.Alarm.User3[]	;Test-47 2012.07.23. 14:37:32.126A;Test-47 2012.07.23. 14:37:32.126A
AlarmGateway_001.Alarm.User2[]	0.0;147.1;147.1
AlarmGateway_001.Alarm.User1[]	0.0;147.1;147.1
AlarmGateway_001.Alarm.Name[]	GenAlarms_001.DiscreteAlarm1;GenAlarms_001.AnalogAlarm1.Hi;GenAlarms_001.AnalogAlarm1.HiHi

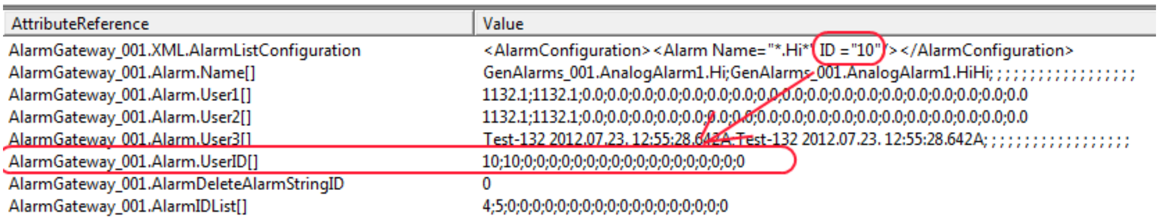
Alarm.UserID

dataType: int array

Description:

Displays User defined ID from Alarm list configuration (XML.AlarmListConfiguration attribute) file Alarm node attribute **ID**

```
<AlarmConfiguration>
        <Alarm Name="*.HiHi" ID ="10"/>
</AlarmConfiguration>
```

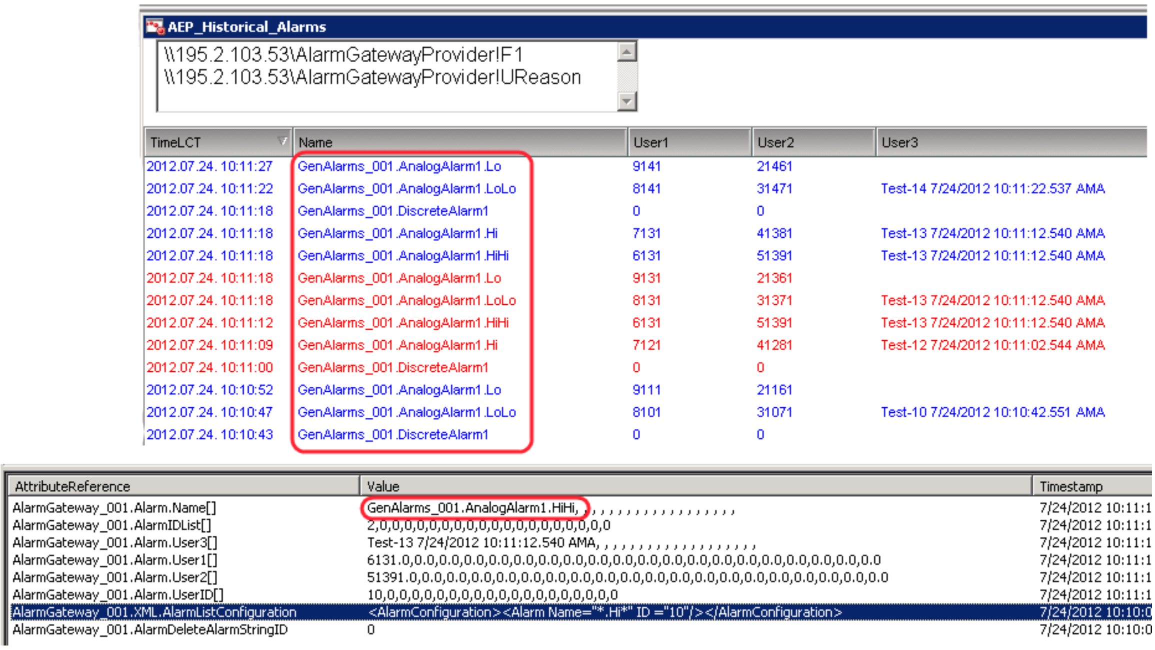


AttributeReference	Value
AlarmGateway_001.XML.AlarmListConfiguration	<AlarmConfiguration><Alarm Name="*.Hi*" ID ="10"/></AlarmConfiguration>
AlarmGateway_001.Alarm.Name[]	GenAlarms_001.AnalogAlarm1.Hi;GenAlarms_001.AnalogAlarm1.HiHi;;;;;;;;;;;;;;;;;;;
AlarmGateway_001.Alarm.User1[]	1132.1;1132.1;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0
AlarmGateway_001.Alarm.User2[]	1132.1;1132.1;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0;0.0
AlarmGateway_001.Alarm.User3[]	Test-132 2012.07.23. 12:55:28.642A;Test-132 2012.07.23. 12:55:28.642A;;;;;;;;;;;;;;;;;;
AlarmGateway_001.Alarm.UserID[]	10;10;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0
AlarmGateway_001.AlarmDeleteAlarmStringID	0
AlarmGateway_001.AlarmIDList[]	4;5;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0

Exposed attributes

Alarm.Name

dataType: string array
Description: Exposed alarm name



AEP_Historical_Alarms

\\195.2.103.53\AlarmGatewayProvider!F1
\\195.2.103.53\AlarmGatewayProvider!UReason

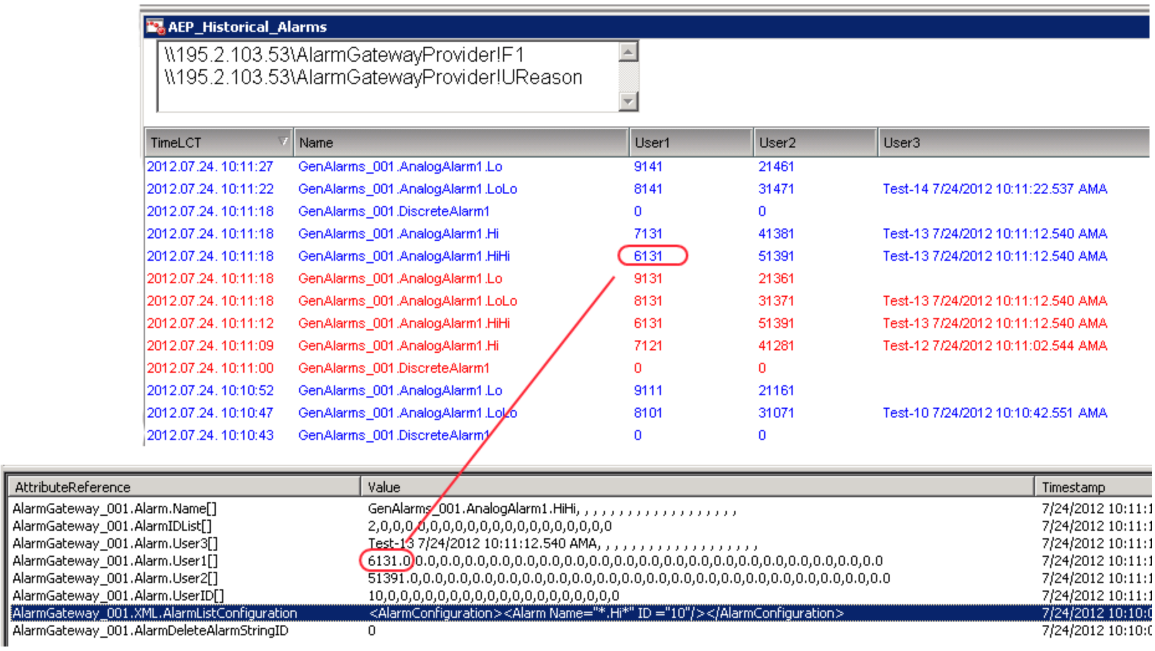
TimeLCT	Name	User1	User2	User3
2012.07.24. 10:11:27	GenAlarms_001.AnalogAlarm1.Lo	9141	21461	
2012.07.24. 10:11:22	GenAlarms_001.AnalogAlarm1.LoLo	8141	31471	Test-14 7/24/2012 10:11:22.537 AMA
2012.07.24. 10:11:18	GenAlarms_001.DiscreteAlarm1	0	0	
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.Hi	7131	41381	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.HiHi	6131	51391	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.Lo	9131	21361	
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.LoLo	8131	31371	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:12	GenAlarms_001.AnalogAlarm1.HiHi	6131	51391	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:09	GenAlarms_001.AnalogAlarm1.Hi	7121	41281	Test-12 7/24/2012 10:11:02.544 AMA
2012.07.24. 10:11:00	GenAlarms_001.DiscreteAlarm1	0	0	
2012.07.24. 10:10:52	GenAlarms_001.AnalogAlarm1.Lo	9111	21161	
2012.07.24. 10:10:47	GenAlarms_001.AnalogAlarm1.LoLo	8101	31071	Test-10 7/24/2012 10:10:42.551 AMA
2012.07.24. 10:10:43	GenAlarms_001.DiscreteAlarm1	0	0	

AttributeReference	Value	Timestamp
AlarmGateway_001.Alarm.Name[]	GenAlarms_001.AnalogAlarm1.HiHi, , , , , , , , , , , , , , , , , , ,	7/24/2012 10:11:1
AlarmGateway_001.AlarmIDList[]	2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User3[]	Test-13 7/24/2012 10:11:12.540 AMA, , , , , , , , , , , , , , , , , , ,	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User1[]	6131.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User2[]	51391.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.UserID[]	10,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/24/2012 10:11:1
AlarmGateway_001.XML.AlarmListConfiguration	<AlarmConfiguration><Alarm Name="*.Hi*" ID ="10"/></AlarmConfiguration>	7/24/2012 10:10:0
AlarmGateway_001.AlarmDeleteAlarmStringID	0	7/24/2012 10:10:0

Alarm.User1

dataType: string array
Array size: is defined in editor **ExposedAlarmFields.ArraysSize** attribute.

Description: Exposes Alarm field User1



AEP_Historical_Alarms

\\195.2.103.53\AlarmGatewayProvider!F1
\\195.2.103.53\AlarmGatewayProvider!UReason

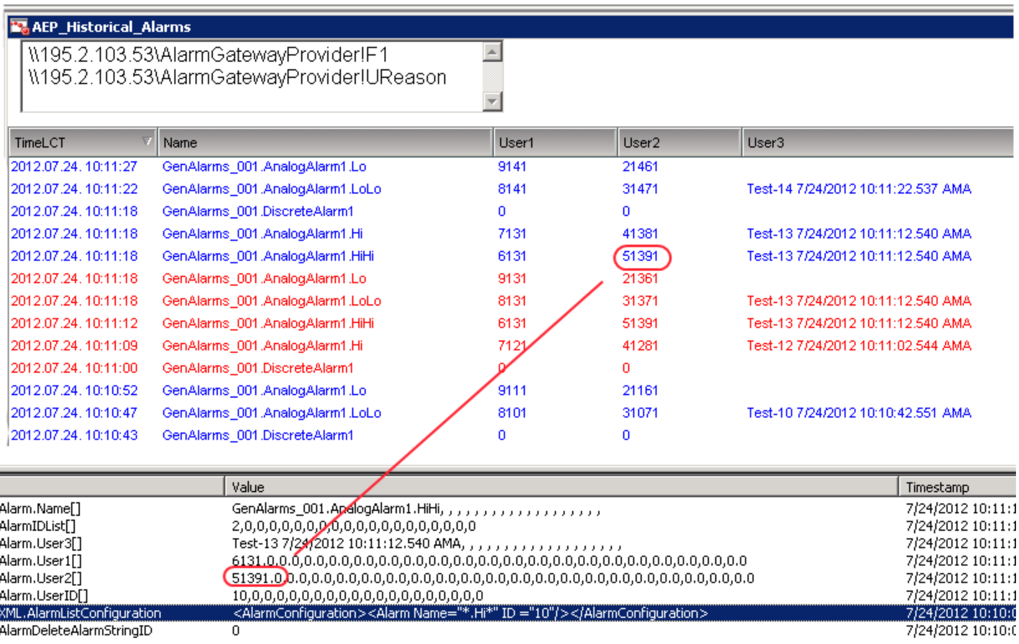
TimeLCT	Name	User1	User2	User3
2012.07.24. 10:11:27	GenAlarms_001.AnalogAlarm1.Lo	9141	21461	
2012.07.24. 10:11:22	GenAlarms_001.AnalogAlarm1.LoLo	8141	31471	Test-14 7/24/2012 10:11:22.537 AMA
2012.07.24. 10:11:18	GenAlarms_001.DiscreteAlarm1	0	0	
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.Hi	7131	41381	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.HiHi	6131	51391	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.Lo	9131	21361	
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.LoLo	8131	31371	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:12	GenAlarms_001.AnalogAlarm1.HiHi	6131	51391	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:09	GenAlarms_001.AnalogAlarm1.Hi	7121	41281	Test-12 7/24/2012 10:11:02.544 AMA
2012.07.24. 10:11:00	GenAlarms_001.DiscreteAlarm1	0	0	
2012.07.24. 10:10:52	GenAlarms_001.AnalogAlarm1.Lo	9111	21161	
2012.07.24. 10:10:47	GenAlarms_001.AnalogAlarm1.LoLo	8101	31071	Test-10 7/24/2012 10:10:42.551 AMA
2012.07.24. 10:10:43	GenAlarms_001.DiscreteAlarm1	0	0	

AttributeReference	Value	Timestamp
AlarmGateway_001.Alarm.Name[]	GenAlarms_001.AnalogAlarm1.HiHi, , , , , , , , , , , , , , , , , , ,	7/24/2012 10:11:1
AlarmGateway_001.AlarmIDList[]	2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User3[]	Test-13 7/24/2012 10:11:12.540 AMA, , , , , , , , , , , , , , , , , , ,	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User1[]	6131.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User2[]	51391.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.UserID[]	10,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/24/2012 10:11:1
AlarmGateway_001.XML.AlarmListConfiguration	<AlarmConfiguration><Alarm Name="*.Hi*" ID ="10"/></AlarmConfiguration>	7/24/2012 10:10:0
AlarmGateway_001.AlarmDeleteAlarmStringID	0	7/24/2012 10:10:0

Alarm.User2

dataType: float array
Array size: is defined in editor **ExposedAlarmFields.ArraysSize** attribute.

Description: Exposes Alarm field User2



AEP_Historical_Alarms

\\195.2.103.53\AlarmGatewayProvider!F1
\\195.2.103.53\AlarmGatewayProvider!UReason

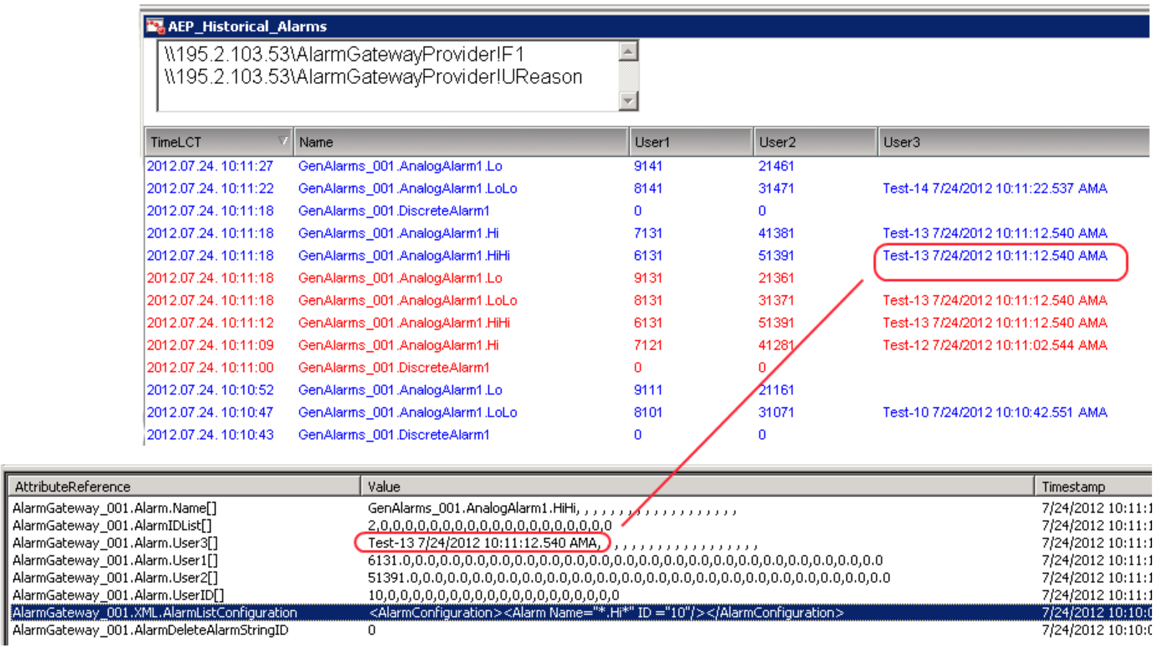
TimeLCT	Name	User1	User2	User3
2012.07.24. 10:11:27	GenAlarms_001.AnalogAlarm1.Lo	9141	21461	
2012.07.24. 10:11:22	GenAlarms_001.AnalogAlarm1.LoLo	8141	31471	Test-14 7/24/2012 10:11:22.537 AMA
2012.07.24. 10:11:18	GenAlarms_001.DiscreteAlarm1	0	0	
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.Hi	7131	41381	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.HiHi	6131	51391	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.Lo	9131	21361	
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.LoLo	8131	31371	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:12	GenAlarms_001.AnalogAlarm1.HiHi	6131	51391	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:09	GenAlarms_001.AnalogAlarm1.Hi	7121	41281	Test-12 7/24/2012 10:11:02.544 AMA
2012.07.24. 10:11:00	GenAlarms_001.DiscreteAlarm1	0	0	
2012.07.24. 10:10:52	GenAlarms_001.AnalogAlarm1.Lo	9111	21161	
2012.07.24. 10:10:47	GenAlarms_001.AnalogAlarm1.LoLo	8101	31071	Test-10 7/24/2012 10:10:42.551 AMA
2012.07.24. 10:10:43	GenAlarms_001.DiscreteAlarm1	0	0	

AttributeReference	Value	Timestamp
AlarmGateway_001.Alarm.Name[]	GenAlarms_001.AnalogAlarm1.HiHi, , , , , , , , , , , , , , , , , , ,	7/24/2012 10:11:1
AlarmGateway_001.AlarmIDList[]	2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User3[]	Test-13 7/24/2012 10:11:12.540 AMA, , , , , , , , , , , , , , , , , , ,	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User1[]	6131.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User2[]	51391.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.UserID[]	10,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/24/2012 10:11:1
AlarmGateway_001.XML.AlarmListConfiguration	<AlarmConfiguration><Alarm Name="*.Hi*" ID ="10"/></AlarmConfiguration>	7/24/2012 10:10:0
AlarmGateway_001.AlarmDeleteAlarmStringID	0	7/24/2012 10:10:0

Alarm.User3

dataType: float array
Array size: is defined in editor attribute **ExposedAlarmFields.ArraysSize** attribute.

Description: Exposes Alarm field User3



AEP_Historical_Alarms

\\195.2.103.53\AlarmGatewayProvider!F1
\\195.2.103.53\AlarmGatewayProvider!UReason

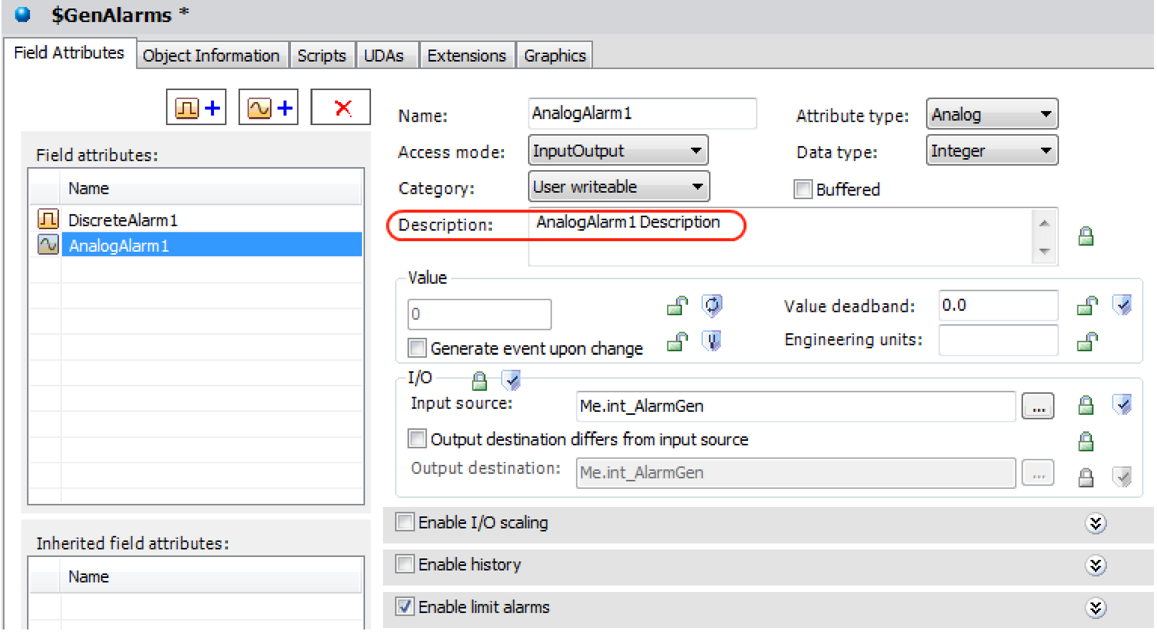
TimeLCT	Name	User1	User2	User3
2012.07.24. 10:11:27	GenAlarms_001.AnalogAlarm1.Lo	9141	21461	
2012.07.24. 10:11:22	GenAlarms_001.AnalogAlarm1.LoLo	8141	31471	Test-14 7/24/2012 10:11:22.537 AMA
2012.07.24. 10:11:18	GenAlarms_001.DiscreteAlarm1	0	0	
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.Hi	7131	41381	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.HiHi	6131	51391	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.Lo	9131	21361	
2012.07.24. 10:11:18	GenAlarms_001.AnalogAlarm1.LoLo	8131	31371	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:12	GenAlarms_001.AnalogAlarm1.HiHi	6131	51391	Test-13 7/24/2012 10:11:12.540 AMA
2012.07.24. 10:11:09	GenAlarms_001.AnalogAlarm1.Hi	7121	41281	Test-12 7/24/2012 10:11:02.544 AMA
2012.07.24. 10:11:00	GenAlarms_001.DiscreteAlarm1	0	0	
2012.07.24. 10:10:52	GenAlarms_001.AnalogAlarm1.Lo	9111	21161	
2012.07.24. 10:10:47	GenAlarms_001.AnalogAlarm1.LoLo	8101	31071	Test-10 7/24/2012 10:10:42.551 AMA
2012.07.24. 10:10:43	GenAlarms_001.DiscreteAlarm1	0	0	

AttributeReference	Value	Timestamp
AlarmGateway_001.Alarm.Name[]	GenAlarms_001.AnalogAlarm1.HiHi, , , , , , , , , , , , , , , , , , ,	7/24/2012 10:11:1
AlarmGateway_001.AlarmIDList[]	2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User3[]	Test-13 7/24/2012 10:11:12.540 AMA, , , , , , , , , , , , , , , , , , ,	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User1[]	6131.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.User2[]	51391.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0	7/24/2012 10:11:1
AlarmGateway_001.Alarm.UserID[]	10,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	7/24/2012 10:11:1
AlarmGateway_001.XML.AlarmListConfiguration	<AlarmConfiguration><Alarm Name="*.Hi*" ID ="10"/></AlarmConfiguration>	7/24/2012 10:10:0
AlarmGateway_001.AlarmDeleteAlarmStringID	0	7/24/2012 10:10:0

Custom Acked Alarm comment field

Overview

By using Alarm Gateway, it is possible to configure custom Acked alarm comment field for Acked alarms - this is useful if alarm descriptions are used:



Field attributes:

Name
DiscreteAlarm1
AnalogAlarm1

Inherited field attributes:

Name

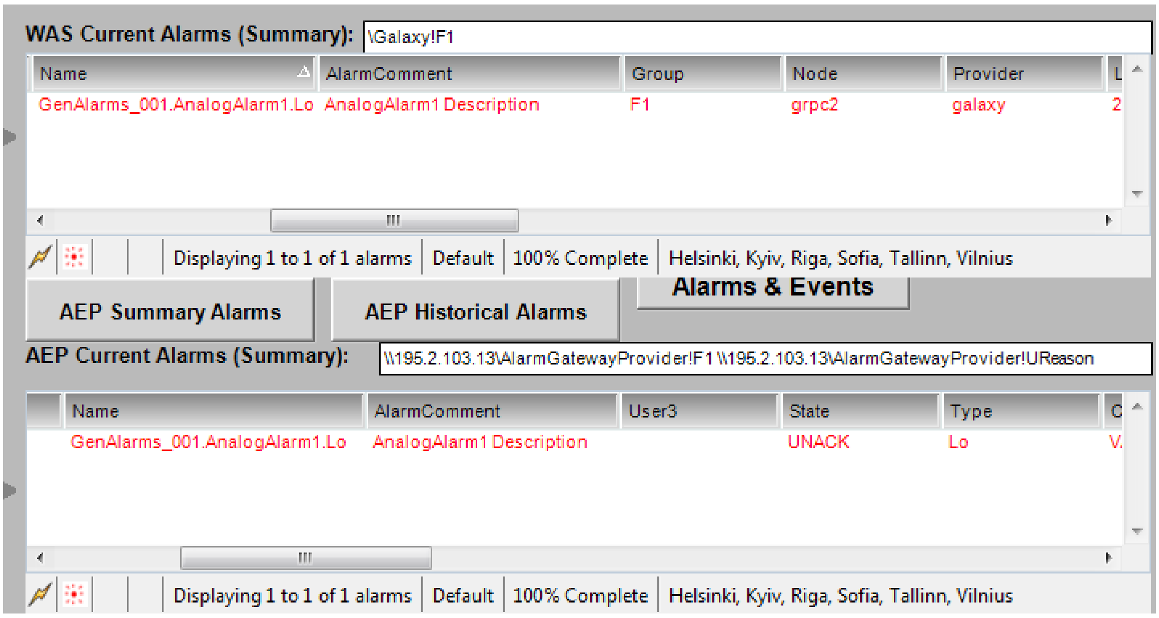
Name: AnalogAlarm1
Attribute type: Analog
Access mode: InputOutput
Data type: Integer
Category: User writeable
☐ Buffered
Description: AnalogAlarm1 Description

Value
0
☐ Generate event upon change
Value deadband: 0.0
Engineering units:

I/O
Input source: Me.int_AlarmGen
☐ Output destination differs from input source
Output destination: Me.int_AlarmGen

☐ Enable I/O scaling
☐ Enable history
☑ Enable limit alarms

Alarm description is stored in AlarmComment field:



WAS Current Alarms (Summary): \Galaxy!F1

Name	AlarmComment	Group	Node	Provider	L
GenAlarms_001.AnalogAlarm1.Lo	AnalogAlarm1 Description	F1	grpc2	galaxy	2

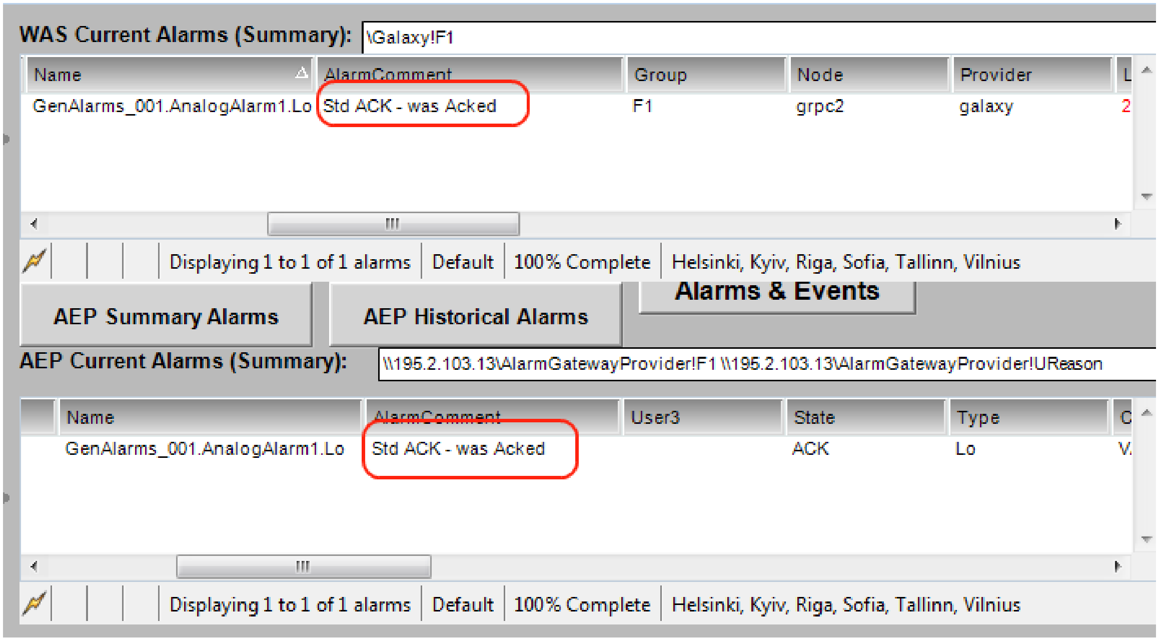
Displaying 1 to 1 of 1 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

AEP Current Alarms (Summary): \\195.2.103.13\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

Name	AlarmComment	User3	State	Type	C
GenAlarms_001.AnalogAlarm1.Lo	AnalogAlarm1 Description		UNACK	Lo	V.

Displaying 1 to 1 of 1 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

If alarm is Acked, by default AlarmComment value is overwritten by alarm comment value:



WAS Current Alarms (Summary): \Galaxy!F1

Name	AlarmComment	Group	Node	Provider	L
GenAlarms_001.AnalogAlarm1.Lo	Std ACK - was Acked	F1	grpc2	galaxy	2

Displaying 1 to 1 of 1 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

AEP Current Alarms (Summary): \\195.2.103.13\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

Name	AlarmComment	User3	State	Type	C
GenAlarms_001.AnalogAlarm1.Lo	Std ACK - was Acked		ACK	Lo	V.

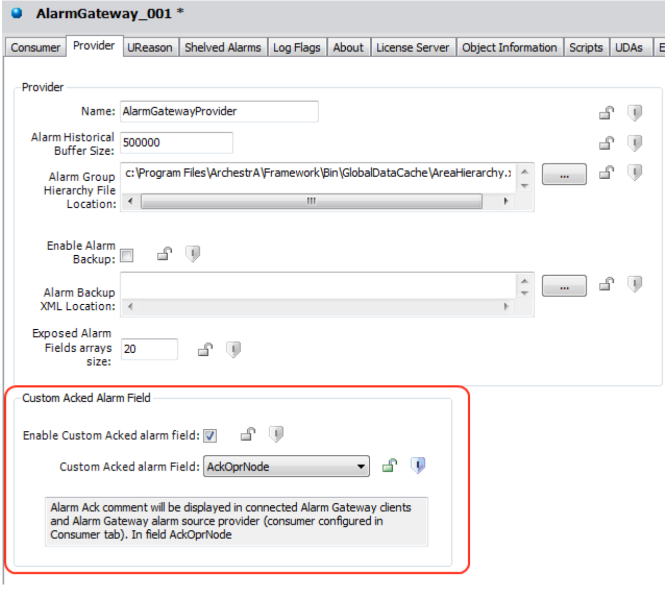
Displaying 1 to 1 of 1 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

With Alarm Gateway it is possible to configure different Alarm field to store Ack comment and preserve Alarm description.

Configuration

Editor

Custom alarm Ack comment field feature can be configured in **Provider** tab **Custom Acked Alarm Field** section**:**



Provider

Name: AlarmGatewayProvider

Alarm Historical Buffer Size: 500000

Alarm Group Hierarchy File Location: c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCache\AreaHierarchy.:

Enable Alarm Backup: □

Alarm Backup XML Location:

Exposed Alarm Fields arrays size: 20

Custom Acked Alarm Field

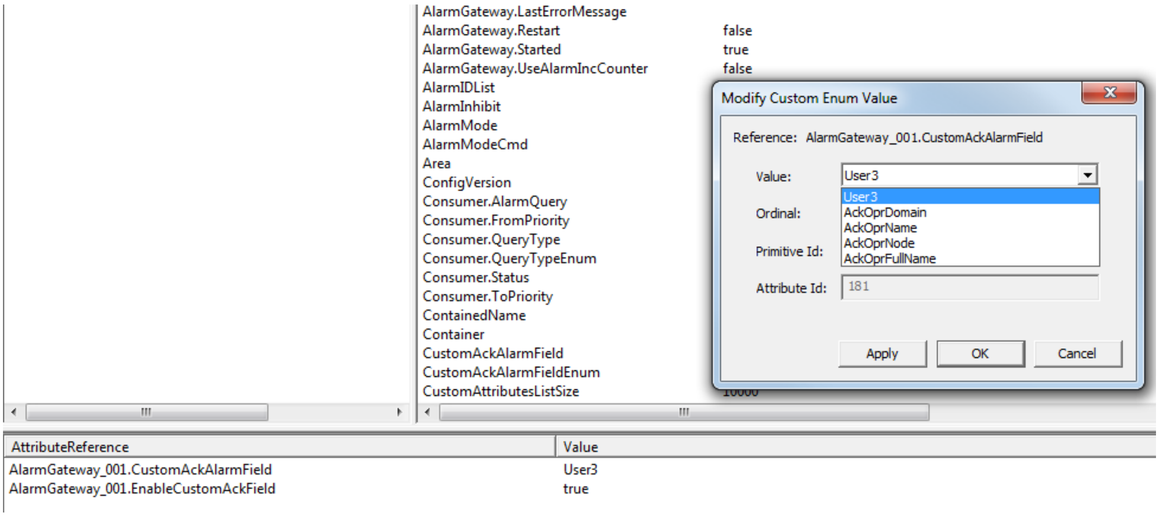
Enable Custom Acked alarm field: ☑

Custom Acked alarm Field: AckOprNode

Alarm Ack comment will be displayed in connected Alarm Gateway clients and Alarm Gateway alarm source provider (consumer configured in Consumer tab). In field AckOprNode

Runtime

Custom alarm Acked comment field is possible to configure in runtime without Alarm gateway restart:



AlarmGateway.LastErrorMessage	
AlarmGateway.Restart	false
AlarmGateway.Started	true
AlarmGateway.UseAlarmIncCounter	false
AlarmIDList	
AlarmInhibit	
AlarmMode	
AlarmModeCmd	
Area	
ConfigVersion	
Consumer.AlarmQuery	
Consumer.FromPriority	
Consumer.QueryType	
Consumer.QueryTypeEnum	
Consumer.Status	
Consumer.ToPriority	
ContainedName	
Container	
CustomAckAlarmField	
CustomAckAlarmFieldEnum	
CustomAttributesListSize	10000

Modify Custom Enum Value

Reference: AlarmGateway_001.CustomAckAlarmField

Value: User3

Ordinal:

Primitive Id:

Attribute Id: 181

AttributeReference	Value
AlarmGateway_001.CustomAckAlarmField	User3
AlarmGateway_001.EnableCustomAckField	true

Attributes

EnableCustomAckField

Datatype: Boolean
Description: enables/disables Custom alarm Ack comment field feature.

If True - Custom alarm Ack comment field feature is enabled and Acked alarm comment is written in configured field in CustomAckAlramField attribute

If False - Custom alarm Ack comment field feature is disabled and default Alarm system functionality is used - Ack comment overwrites **AlarmComment** field

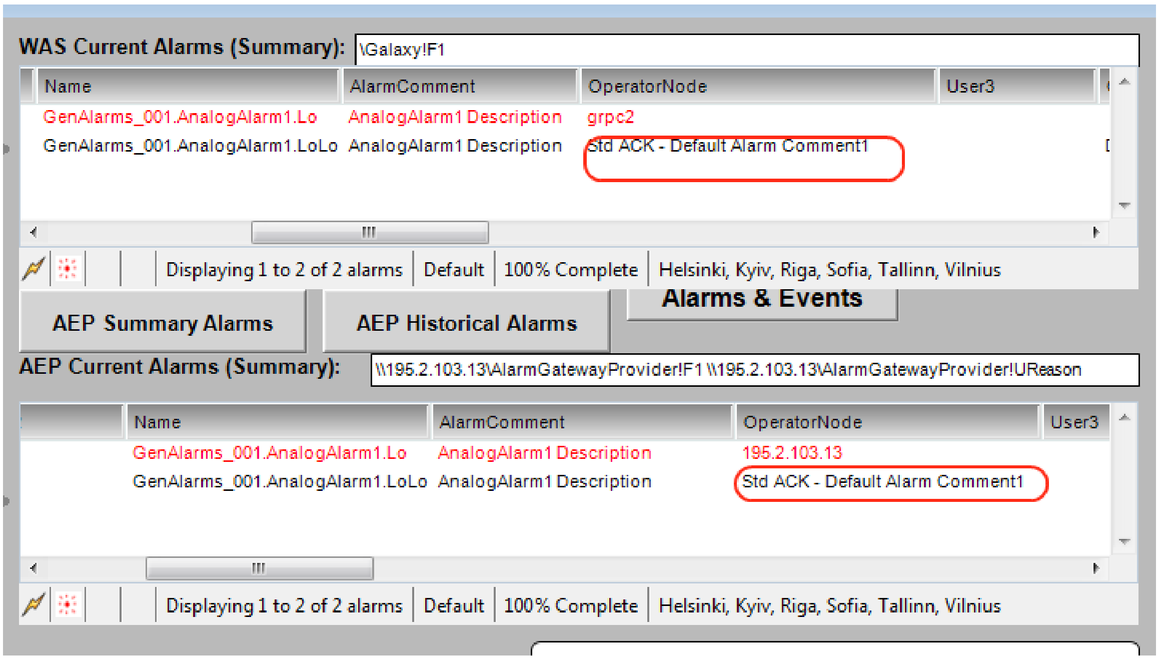
CustomAckAlramField

Datatype: Enum
Description: Defines custom Alarm Ack field.

Following custom Alarm Ack Comment fields are possible to configure:

- **AckOprNode**

Alarm Ack comment will be displayed in connected Alarm Gateway clients and Alarm Gateway alarm source Provider (Consumer configured in Consumer tab). In **AckOprNode** field:



WAS Current Alarms (Summary): \Galaxy!F1

Name	AlarmComment	OperatorNode	User3
GenAlarms_001.AnalogAlarm1.Lo	AnalogAlarm1 Description	grpc2	
GenAlarms_001.AnalogAlarm1.LoLo	AnalogAlarm1 Description	Std ACK - Default Alarm Comment1	

Displaying 1 to 2 of 2 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

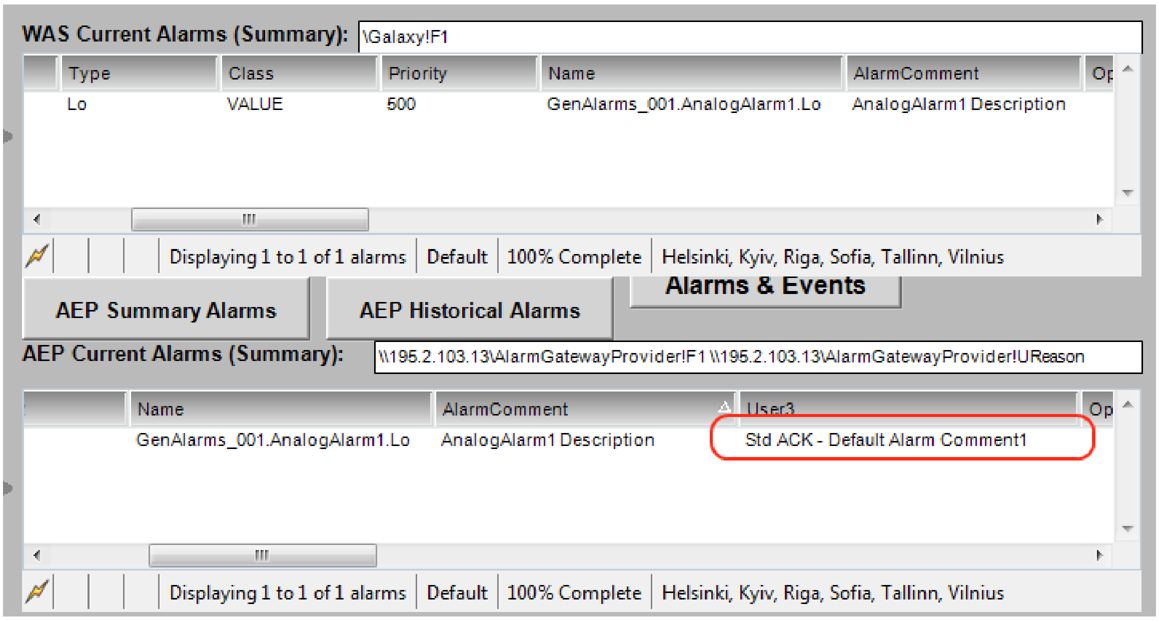
AEP Current Alarms (Summary): \\195.2.103.13\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

Name	AlarmComment	OperatorNode	User3
GenAlarms_001.AnalogAlarm1.Lo	AnalogAlarm1 Description	195.2.103.13	
GenAlarms_001.AnalogAlarm1.LoLo	AnalogAlarm1 Description	Std ACK - Default Alarm Comment1	

Displaying 1 to 2 of 2 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

- **User3**

Alarm Ack comment will be displayed in connected Alarm Gateway clients only, in **User3** field:



WAS Current Alarms (Summary): \Galaxy!F1

Type	Class	Priority	Name	AlarmComment	Op
Lo	VALUE	500	GenAlarms_001.AnalogAlarm1.Lo	AnalogAlarm1 Description	

Displaying 1 to 1 of 1 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

AEP Current Alarms (Summary): \\195.2.103.13\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

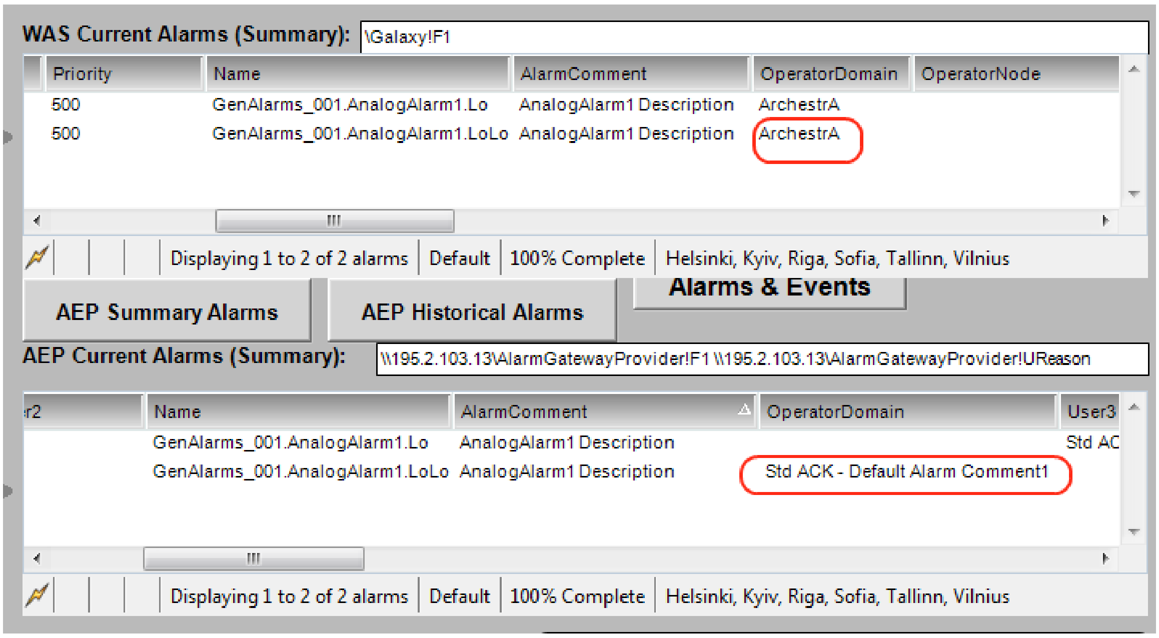
Name	AlarmComment	User3	Op
GenAlarms_001.AnalogAlarm1.Lo	AnalogAlarm1 Description	Std ACK - Default Alarm Comment1	

Displaying 1 to 1 of 1 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

Note: WAS alarm Provider will only Ack alarm without changing the AlarmComment.

- **AckOprDomain**

Alarm Ack comment will be displayed in connected Alarm Gateway clients only, in **OperatorDomain** field:



WAS Current Alarms (Summary): \Galaxy!F1

Priority	Name	AlarmComment	OperatorDomain	OperatorNode
500	GenAlarms_001.AnalogAlarm1.Lo	AnalogAlarm1 Description	ArchestrA	
500	GenAlarms_001.AnalogAlarm1.LoLo	AnalogAlarm1 Description	ArchestrA	

Displaying 1 to 2 of 2 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

AEP Current Alarms (Summary): \\195.2.103.13\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

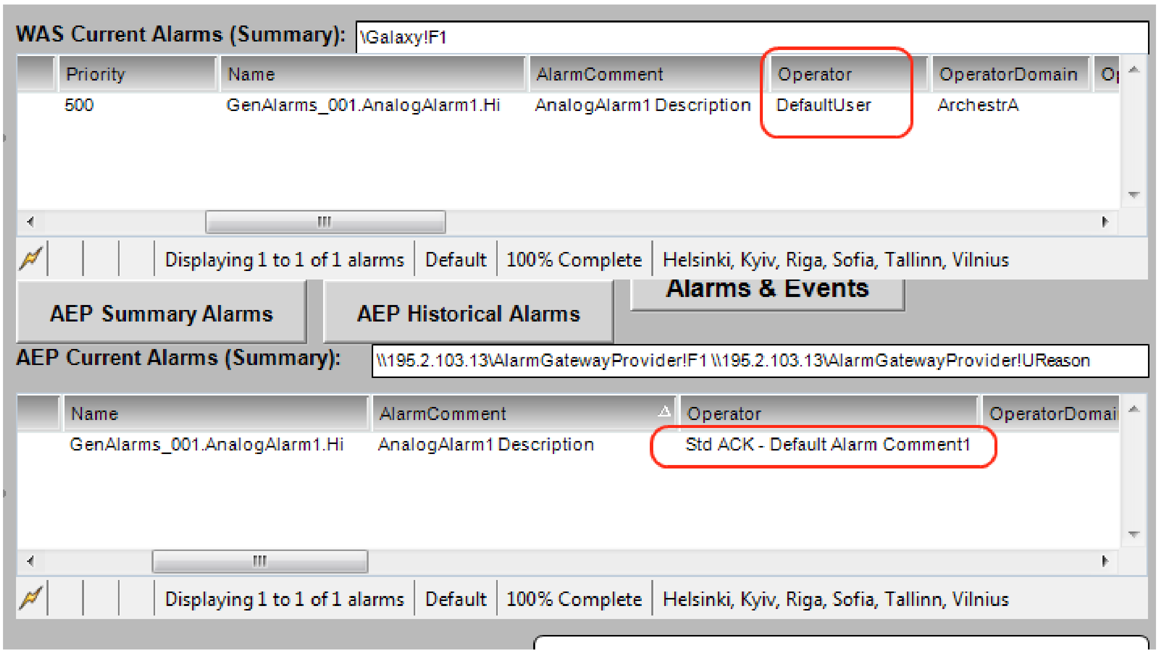
r2	Name	AlarmComment	OperatorDomain	User3
	GenAlarms_001.AnalogAlarm1.Lo	AnalogAlarm1 Description		Std AC
	GenAlarms_001.AnalogAlarm1.LoLo	AnalogAlarm1 Description	Std ACK - Default Alarm Comment1	

Displaying 1 to 2 of 2 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

Note: WAS alarm provider will only Ack alarm without changing AlarmComment.

- **AckOprName**

Alarm Ack comment will be displayed in connected Alarm Gateway clients only, in **OperatorName** field:



WAS Current Alarms (Summary): \Galaxy!F1

Priority	Name	AlarmComment	Operator	OperatorDomain	O
500	GenAlarms_001.AnalogAlarm1.Hi	AnalogAlarm1 Description	DefaultUser	ArchestrA	

Displaying 1 to 1 of 1 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

AEP Current Alarms (Summary): \\195.2.103.13\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

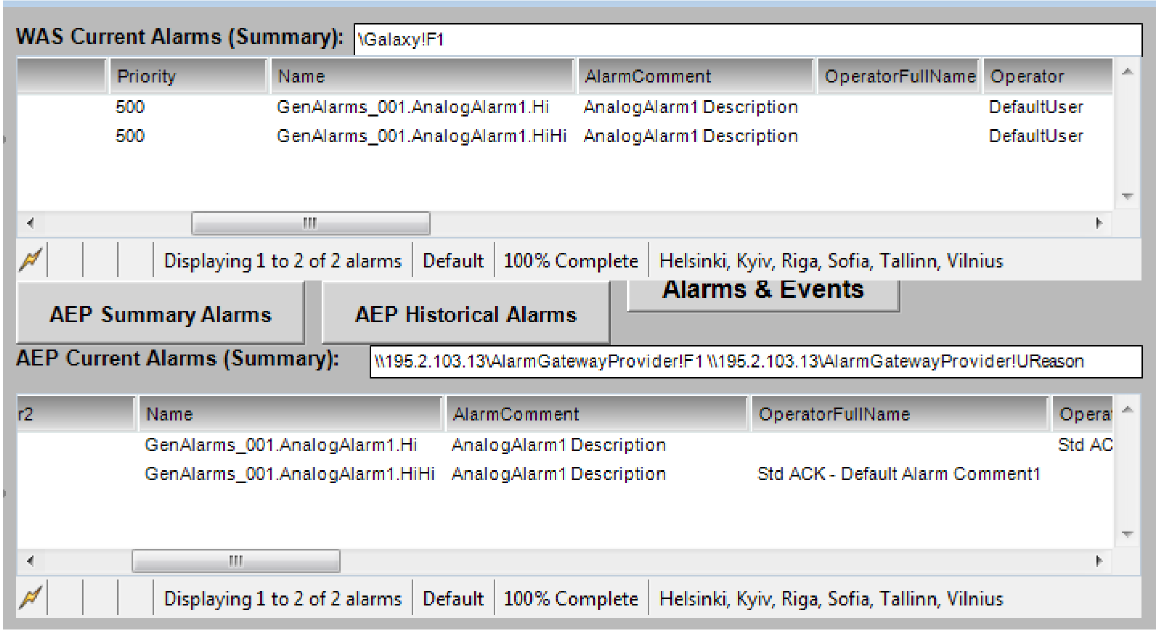
Name	AlarmComment	Operator	OperatorDomai
GenAlarms_001.AnalogAlarm1.Hi	AnalogAlarm1 Description	Std ACK - Default Alarm Comment1	

Displaying 1 to 1 of 1 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

Note: WAS alarm provider will only Ack alarm without changing AlarmComment.

- **AckOprFullName**

Alarm Ack comment will be displayed in connected Alarm Gateway clients only, in **OperatorFullName** field:



WAS Current Alarms (Summary): \Galaxy!F1

Priority	Name	AlarmComment	OperatorFullName	Operator
500	GenAlarms_001.AnalogAlarm1.Hi	AnalogAlarm1 Description		DefaultUser
500	GenAlarms_001.AnalogAlarm1.HiHi	AnalogAlarm1 Description		DefaultUser

Displaying 1 to 2 of 2 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

AEP Current Alarms (Summary): \\195.2.103.13\AlarmGatewayProvider!F1 \\195.2.103.13\AlarmGatewayProvider!UReason

r2	Name	AlarmComment	OperatorFullName	Opera
	GenAlarms_001.AnalogAlarm1.Hi	AnalogAlarm1 Description		Std AC
	GenAlarms_001.AnalogAlarm1.HiHi	AnalogAlarm1 Description	Std ACK - Default Alarm Comment1	

Displaying 1 to 2 of 2 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

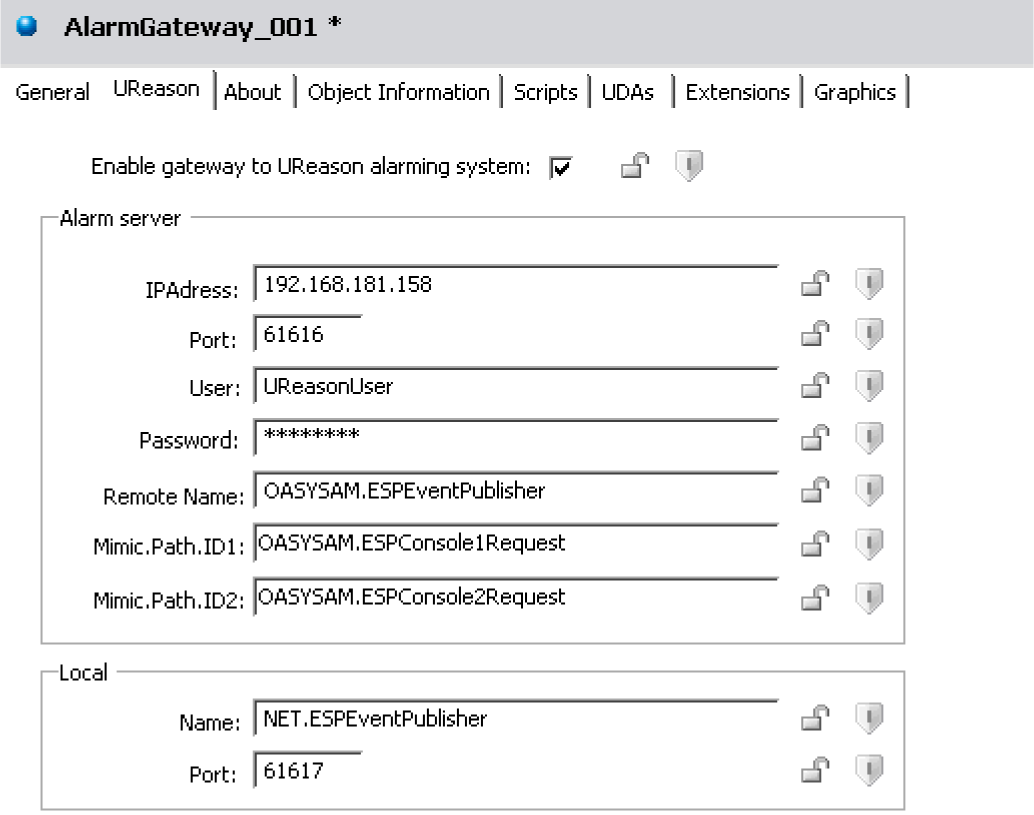
Note: WAS alarm provider will only Ack alarm without changing AlarmComment.

UReason gateway

Alarm Gateway Object provides functionality to send/receive alarms to/from Wonderware alarming system from/to UReason alarming system. The following functionality is supported:

1. Send new and acknowledged alarms to UReason alarm system.
2. UReason functionality to show Mimic InTouch windows.
3. UReason Shelved alarms functionality.
4. Acknowledge Wonderware alarms from UReason alarm system.

The following configuration is required for UReason gateway functionality:



Enable gateway to UReason alarming system: ☑

Alarm server

IPAdress: 192.168.181.158
Port: 61616
User: UReasonUser
Password: ********
Remote Name: OASYSAM.ESPEventPublisher
Mimic.Path.ID1: OASYSAM.ESPConsole1Request
Mimic.Path.ID2: OASYSAM.ESPConsole2Request

Local

Name: NET.ESPEventPublisher
Port: 61617

Please, refer to UReason documentation for more information about UReason alarming system.

Alarm Gateway UReason Mimic functionality

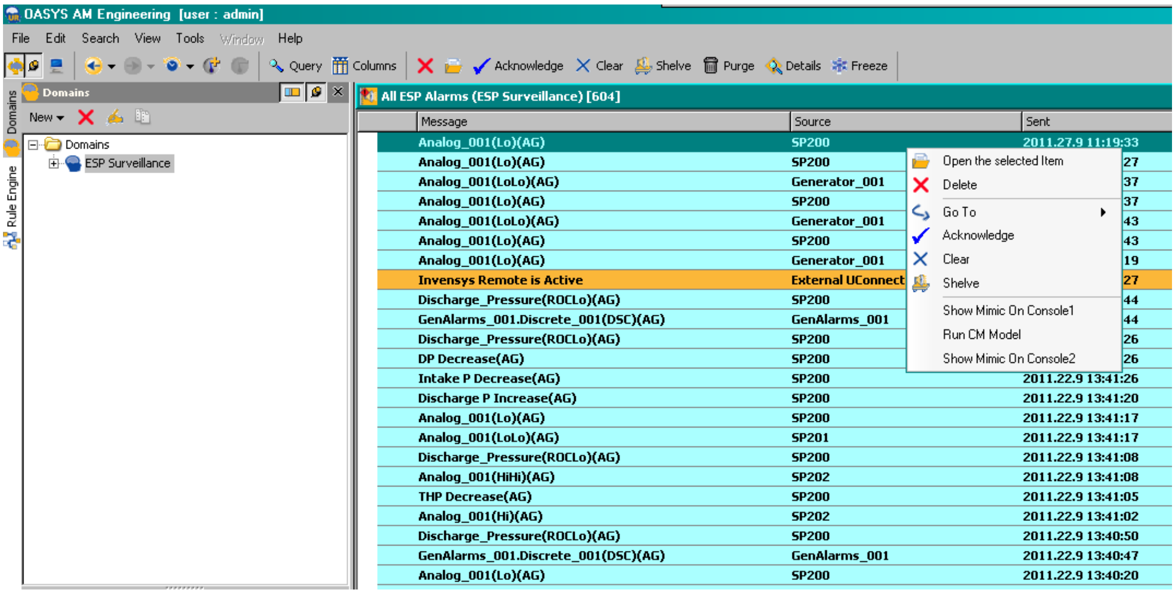
Alarm gateway supports UReason Mimic functionality.

Following object attributes are used for Console1 and Console2:

- AlarmGateway_001.UReason.Mimic.Path.Console1
  If user selects “Show Mimic On Console1” from UReason alarm menu, this attribute is changed to UReason Source value (for Alarm Analog_001.Lo it is SP200, see picture below).

- AlarmGateway_001.UReason.Mimic.Path.Console2

If user selects “Show Mimic On Console2” from UReason alarm menu, this attribute is changed to UReason Source value (for Alarm Analog_001.Lo it is SP200 see picture below).



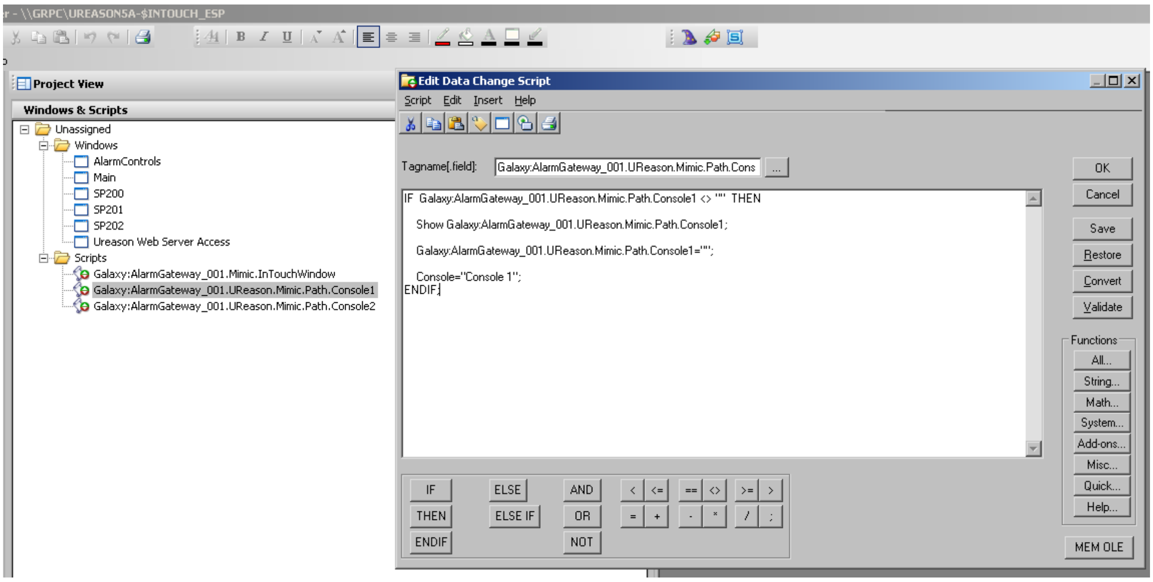
All ESP Alarms (ESP Surveillance) [604]

Message	Source	Sent
Analog_001(Lo)(AG)	SP200	2011.27.9 11:19:33
Analog_001(Lo)(AG)	SP200	27
Analog_001(LoLo)(AG)	Generator_001	37
Analog_001(Lo)(AG)	SP200	37
Analog_001(LoLo)(AG)	Generator_001	43
Analog_001(Lo)(AG)	SP200	43
Analog_001(Lo)(AG)	Generator_001	19
Invensys Remote is Active	External UConnect	27
Discharge_Pressure(ROCLo)(AG)	SP200	44
GenAlarms_001.Discrete_001(DSC)(AG)	GenAlarms_001	44
Discharge_Pressure(ROCLo)(AG)	SP200	26
DP Decrease(AG)	SP200	26
Intake P Decrease(AG)	SP200	2011.22.9 13:41:26
Discharge P Increase(AG)	SP200	2011.22.9 13:41:20
Analog_001(Lo)(AG)	SP200	2011.22.9 13:41:17
Analog_001(LoLo)(AG)	SP201	2011.22.9 13:41:17
Discharge_Pressure(ROCLo)(AG)	SP200	2011.22.9 13:41:08
Analog_001(HiHi)(AG)	SP202	2011.22.9 13:41:08
THP Decrease(AG)	SP200	2011.22.9 13:41:05
Analog_001(Hi)(AG)	SP202	2011.22.9 13:41:02
Discharge_Pressure(ROCLo)(AG)	SP200	2011.22.9 13:40:50
GenAlarms_001.Discrete_001(DSC)(AG)	GenAlarms_001	2011.22.9 13:40:47
Analog_001(Lo)(AG)	SP200	2011.22.9 13:40:20

Mimic functionality can be used for opening specific InTouch windows that are tied to UReason alarm by the Source value.

Sample InTouch script:

```
IF  Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console1 <> ""  THEN

   Show Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console1;

   Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console1="";

   Console="Console 1";
ENDIF;


IF  Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console2 <> ""  THEN

   Show Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console2;

   Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console2="";

   Console="Console 2";
ENDIF;
```



Tagname[.field]: Galaxy:AlarmGateway_001.UReason.Mimic.Path.Cons

```
IF  Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console1 <> ""  THEN

   Show Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console1;

   Galaxy:AlarmGateway_001.UReason.Mimic.Path.Console1="";

   Console="Console 1";
ENDIF;
```

Mimic functionality without UReason alarming system

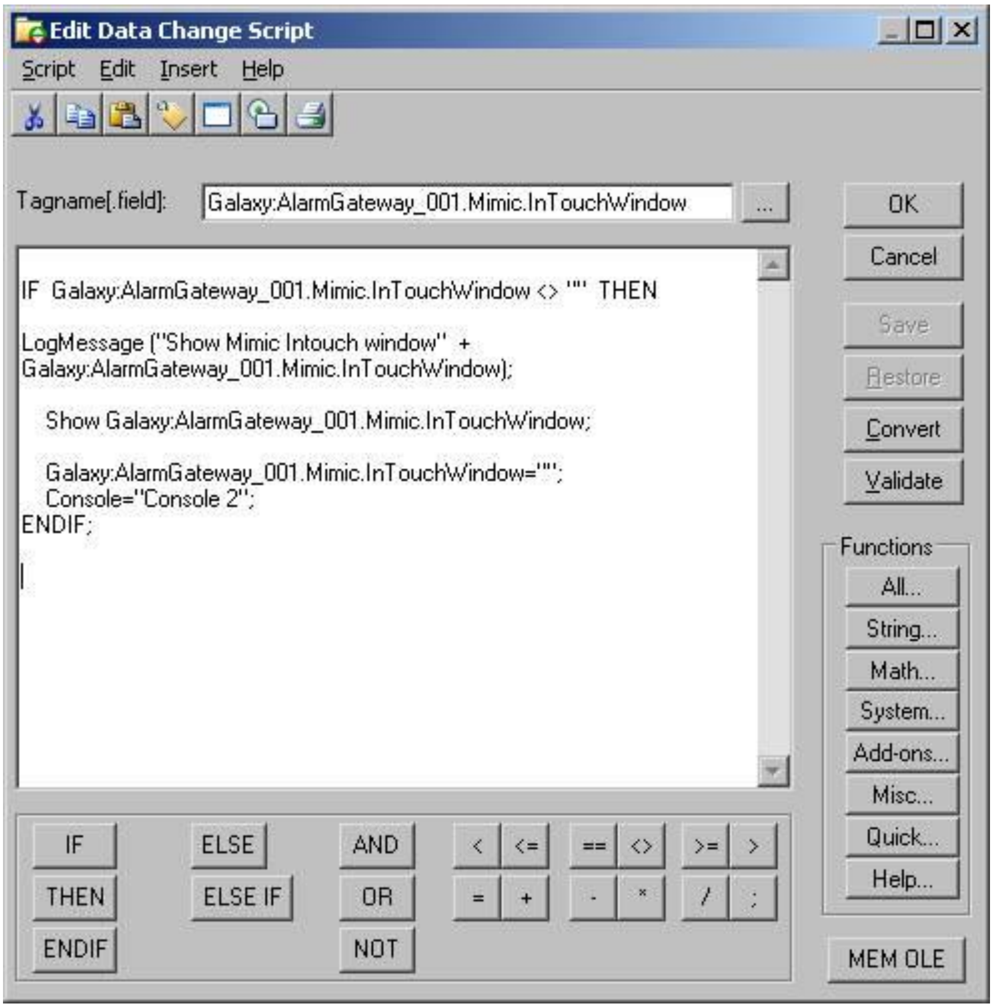
For Alarm Gateway UReason Mimic functionality only for Wonderware alarm system (without UReason), the following string attributes are needed:

- **AlarmGateway_001.Mimic.Alarmname** – input AlarmName from Provider alarms list (max length is 32 characters)
  Sample: SP200.Intake_Pressure_Decrease

- **AlarmGateway_001.Mimic.InTouchWindow** - returns default (WAS object name) or user-defined (set in **setSource** attribute) value, e.g. SP200

<u>Sample script:</u>

```
InTouch data change script Galaxy:AlarmGateway_001.Mimic.InTouchWindow

IF  Galaxy:AlarmGateway_001.Mimic.InTouchWindow <> ""  THEN

LogMessage ("Show Mimic Intouch window"  +
Galaxy:AlarmGateway_001.Mimic.InTouchWindow);

   Show Galaxy:AlarmGateway_001.Mimic.InTouchWindow;

   Galaxy:AlarmGateway_001.Mimic.InTouchWindow="";
   Console="Console 2";
ENDIF;
```



Tagname[.field]: Galaxy:AlarmGateway_001.Mimic.InTouchWindow

```
IF  Galaxy:AlarmGateway_001.Mimic.InTouchWindow <> ""  THEN

LogMessage ("Show Mimic Intouch window"  +
Galaxy:AlarmGateway_001.Mimic.InTouchWindow);

   Show Galaxy:AlarmGateway_001.Mimic.InTouchWindow;

   Galaxy:AlarmGateway_001.Mimic.InTouchWindow="";
   Console="Console 2";
ENDIF;
```

Multiple distributed Alarm Gateway configuration setup sample

In highly loaded WAS applications where total number of alarms exceeds several hundreds or thousands and additional high CPU load features like **Wonderware alarm system custom attributes** are used, it is highly recommended to use several Alarm Gateway Object instances to avoid the object overload.

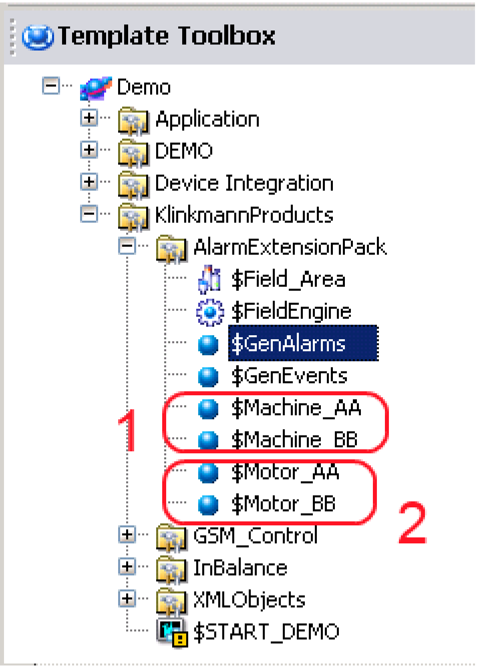
The following sample is for two Alarm Gateway instances.

Object configuration

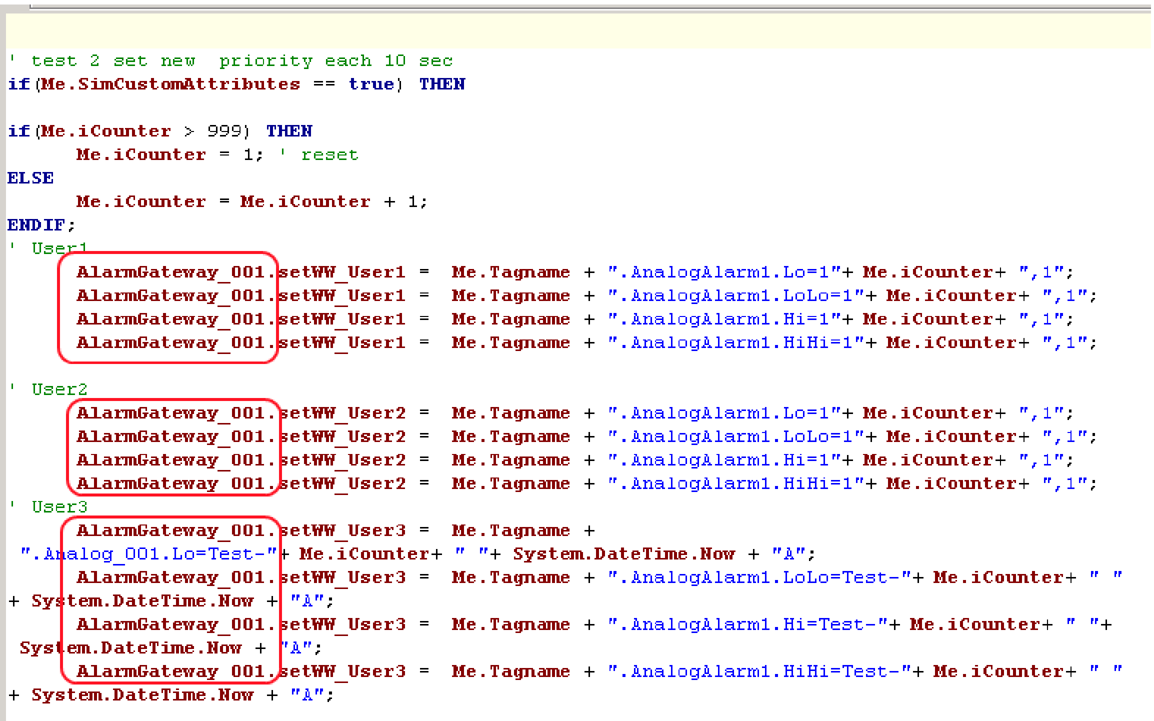
1) Define the template/instance sets for each Alarm Gateway instance, let's assume we are planning to use two Alarm Gateway instances (**AlarmGateway_001** and **AlarmGateway_002**):

   a) For **AlarmGateway_001**
   Define templates: $**Machine_AA** and $**Machine_BB**

   b) For **AlarmGateway_002**
   Define templates: $**Motor_AA** and $ **Motor_BB**

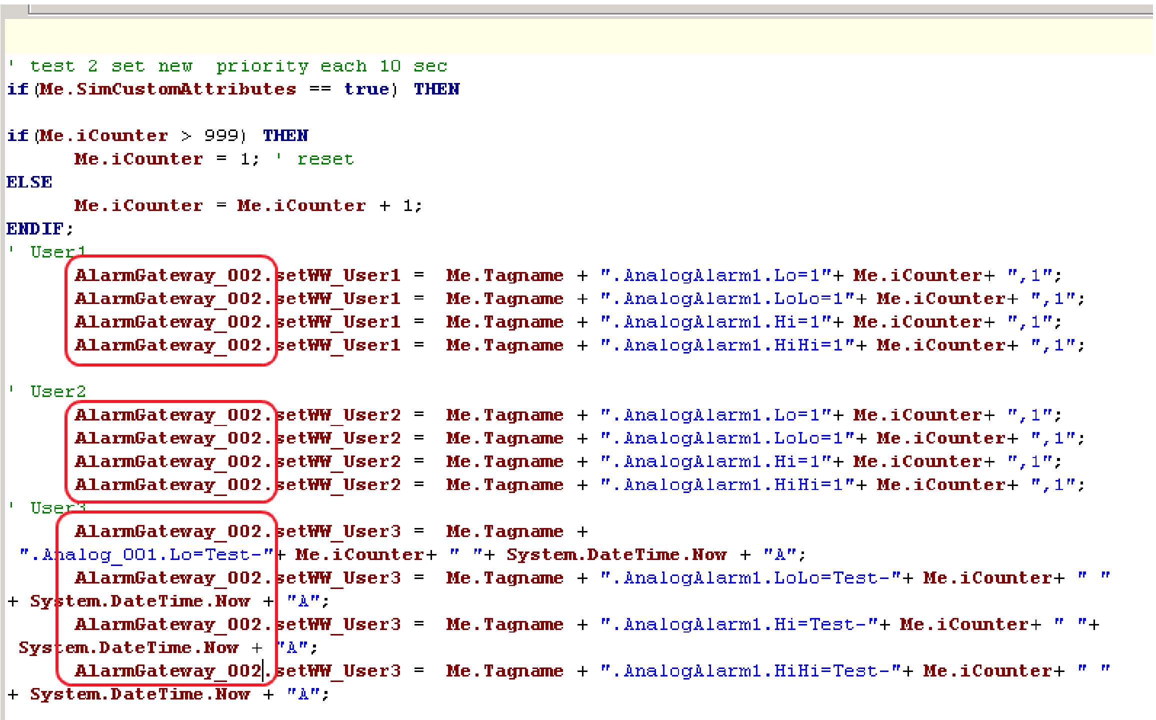


2) Edit template ($**Machine_AA** and $**Machine_BB**) scripts to point to assigned object **AlarmGateway_001**



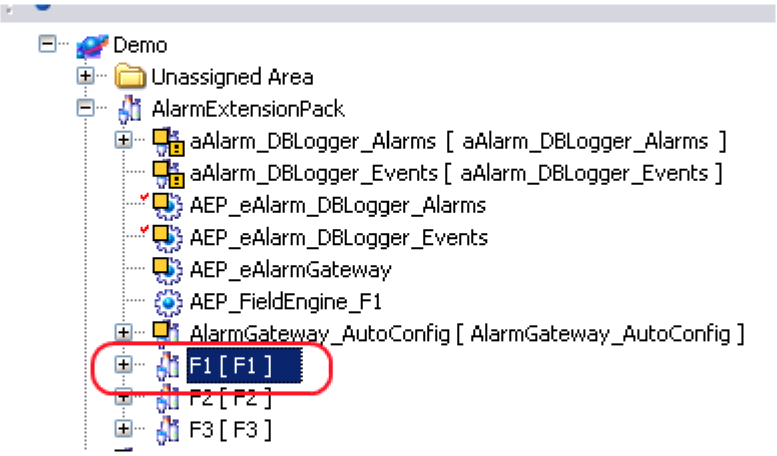
```
' test 2 set new  priority each 10 sec
if(Me.SimCustomAttributes == true) THEN

if(Me.iCounter > 999) THEN
      Me.iCounter = 1; ' reset
ELSE
      Me.iCounter = Me.iCounter + 1;
ENDIF;
' User1
      AlarmGateway_001.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.Lo=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.LoLo=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.Hi=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.HiHi=1"+ Me.iCounter+ ",1";

' User2
      AlarmGateway_001.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.Lo=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.LoLo=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.Hi=1"+ Me.iCounter+ ",1";
      AlarmGateway_001.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.HiHi=1"+ Me.iCounter+ ",1";
' User3
      AlarmGateway_001.setWW_User3 =  Me.Tagname +
 ".Analog_001.Lo=Test-"+ Me.iCounter+ " "+ System.DateTime.Now + "A";
      AlarmGateway_001.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.LoLo=Test-"+ Me.iCounter+ " "
+ System.DateTime.Now + "A";
      AlarmGateway_001.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.Hi=Test-"+ Me.iCounter+ " "+
 System.DateTime.Now + "A";
      AlarmGateway_001.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.HiHi=Test-"+ Me.iCounter+ " "
+ System.DateTime.Now + "A";
```

3) Edit template ($**Motor_AA** and $**Motor_BB**) scripts to point to assigned object **AlarmGateway_002**

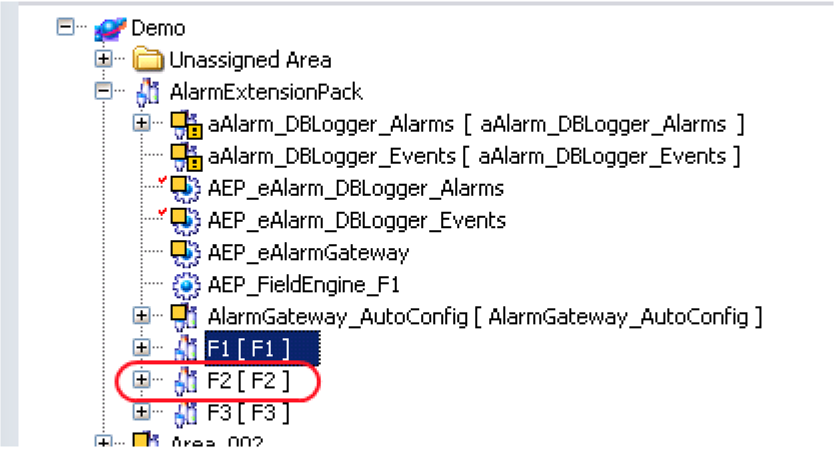


```
' test 2 set new  priority each 10 sec
if(Me.SimCustomAttributes == true) THEN

if(Me.iCounter > 999) THEN
      Me.iCounter = 1; ' reset
ELSE
      Me.iCounter = Me.iCounter + 1;
ENDIF;
' User1
      AlarmGateway_002.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.Lo=1"+ Me.iCounter+ ",1";
      AlarmGateway_002.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.LoLo=1"+ Me.iCounter+ ",1";
      AlarmGateway_002.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.Hi=1"+ Me.iCounter+ ",1";
      AlarmGateway_002.setWW_User1 =  Me.Tagname + ".AnalogAlarm1.HiHi=1"+ Me.iCounter+ ",1";

' User2
      AlarmGateway_002.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.Lo=1"+ Me.iCounter+ ",1";
      AlarmGateway_002.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.LoLo=1"+ Me.iCounter+ ",1";
      AlarmGateway_002.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.Hi=1"+ Me.iCounter+ ",1";
      AlarmGateway_002.setWW_User2 =  Me.Tagname + ".AnalogAlarm1.HiHi=1"+ Me.iCounter+ ",1";
' User3
      AlarmGateway_002.setWW_User3 =  Me.Tagname +
 ".Analog_001.Lo=Test-"+ Me.iCounter+ " "+ System.DateTime.Now + "A";
      AlarmGateway_002.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.LoLo=Test-"+ Me.iCounter+ " "
+ System.DateTime.Now + "A";
      AlarmGateway_002.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.Hi=Test-"+ Me.iCounter+ " "+
 System.DateTime.Now + "A";
      AlarmGateway_002.setWW_User3 =  Me.Tagname + ".AnalogAlarm1.HiHi=Test-"+ Me.iCounter+ " "
+ System.DateTime.Now + "A";
```

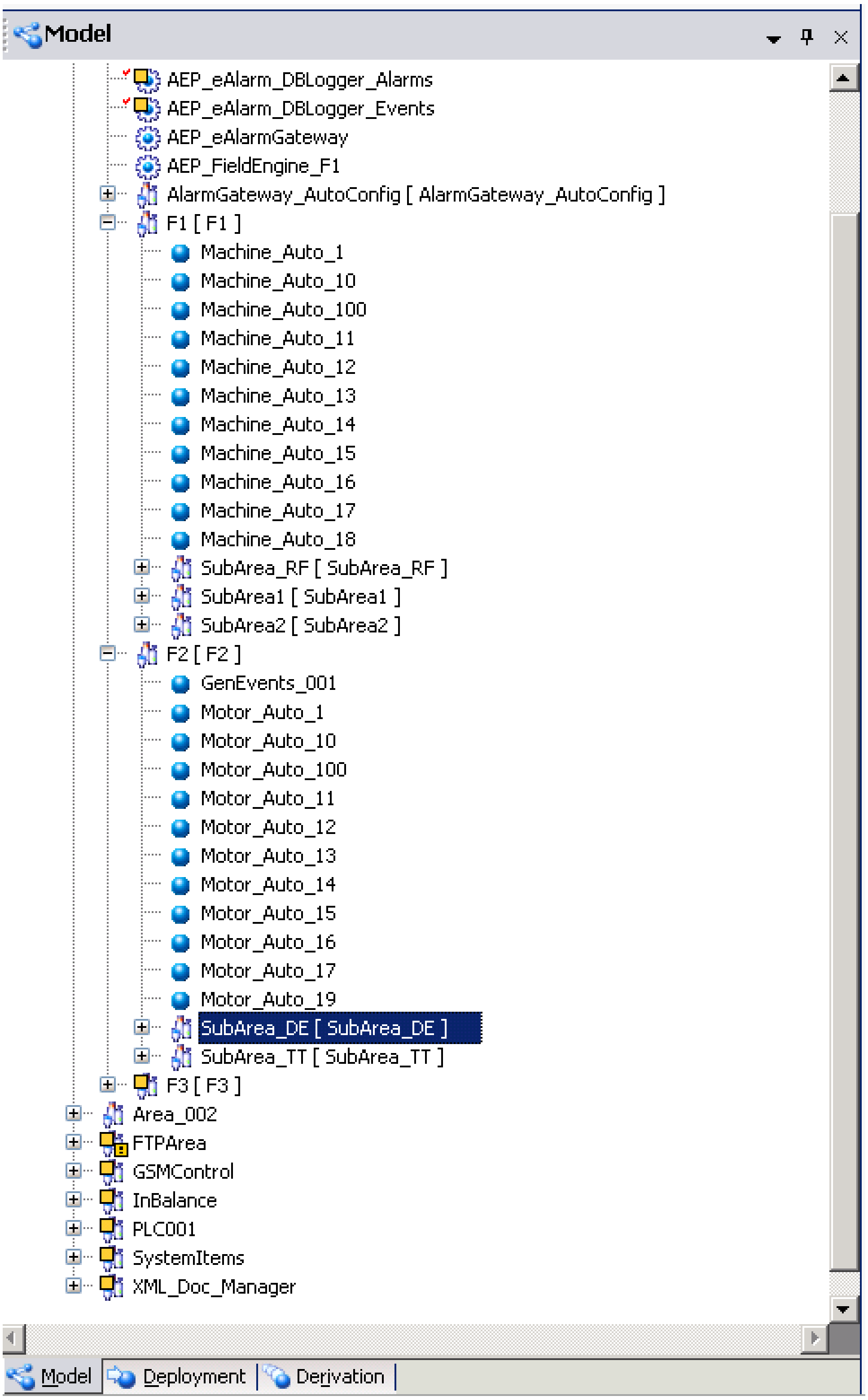
4) Create Area object **F1** area that will be used to all first set objects ($**Machine_AA** and $**Machine_BB**)


Demo
Unassigned Area
AlarmExtensionPack
aAlarm_DBLogger_Alarms [aAlarm_DBLogger_Alarms]
aAlarm_DBLogger_Events [aAlarm_DBLogger_Events]
AEP_eAlarm_DBLogger_Alarms
AEP_eAlarm_DBLogger_Events
AEP_eAlarmGateway
AEP_FieldEngine_F1
AlarmGateway_AutoConfig [AlarmGateway_AutoConfig]
F1 [F1]
F2 [F2]
F3 [F3]

5) Create Area object **F2** area that will be used to all second set objects ($**Motor_AA** and $ **Motor_BB**

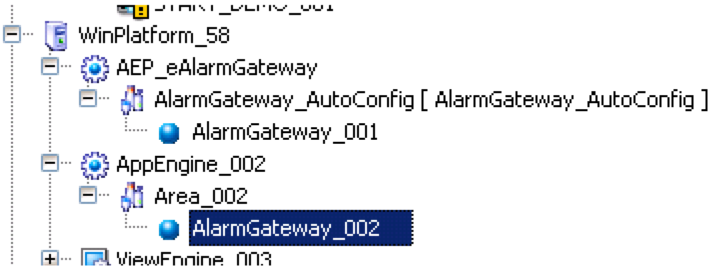

Demo
Unassigned Area
AlarmExtensionPack
aAlarm_DBLogger_Alarms [aAlarm_DBLogger_Alarms]
aAlarm_DBLogger_Events [aAlarm_DBLogger_Events]
AEP_eAlarm_DBLogger_Alarms
AEP_eAlarm_DBLogger_Events
AEP_eAlarmGateway
AEP_FieldEngine_F1
AlarmGateway_AutoConfig [AlarmGateway_AutoConfig]
F1 [F1]
F2 [F2]
F3 [F3]
Area_002

6) Create instances and deploy for both sets. Sample:



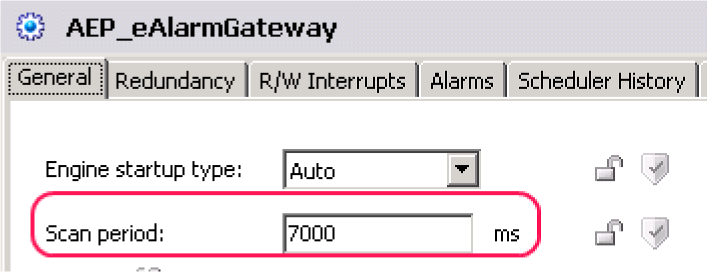
```
AEP_eAlarm_DBLogger_Alarms
AEP_eAlarm_DBLogger_Events
AEP_eAlarmGateway
AEP_FieldEngine_F1
AlarmGateway_AutoConfig [ AlarmGateway_AutoConfig ]
F1 [ F1 ]
    Machine_Auto_1
    Machine_Auto_10
    Machine_Auto_100
    Machine_Auto_11
    Machine_Auto_12
    Machine_Auto_13
    Machine_Auto_14
    Machine_Auto_15
    Machine_Auto_16
    Machine_Auto_17
    Machine_Auto_18
    SubArea_RF [ SubArea_RF ]
    SubArea1 [ SubArea1 ]
    SubArea2 [ SubArea2 ]
F2 [ F2 ]
    GenEvents_001
    Motor_Auto_1
    Motor_Auto_10
    Motor_Auto_100
    Motor_Auto_11
    Motor_Auto_12
    Motor_Auto_13
    Motor_Auto_14
    Motor_Auto_15
    Motor_Auto_16
    Motor_Auto_17
    Motor_Auto_19
    SubArea_DE [ SubArea_DE ]
    SubArea_TT [ SubArea_TT ]
F3 [ F3 ]
Area_002
FTPArea
GSMControl
InBalance
PLC001
SystemItems
XML_Doc_Manager
```

7) Create separate engines and Areas for each Alarm Gateway Object instance:



Note: Separate engine for each Alarm Gateway is “**must have”** requirement since each engine creates a separate process and that allows to distribute the load between multiple CPU cores.

8) Set both engines Scan period to 7000 ms.

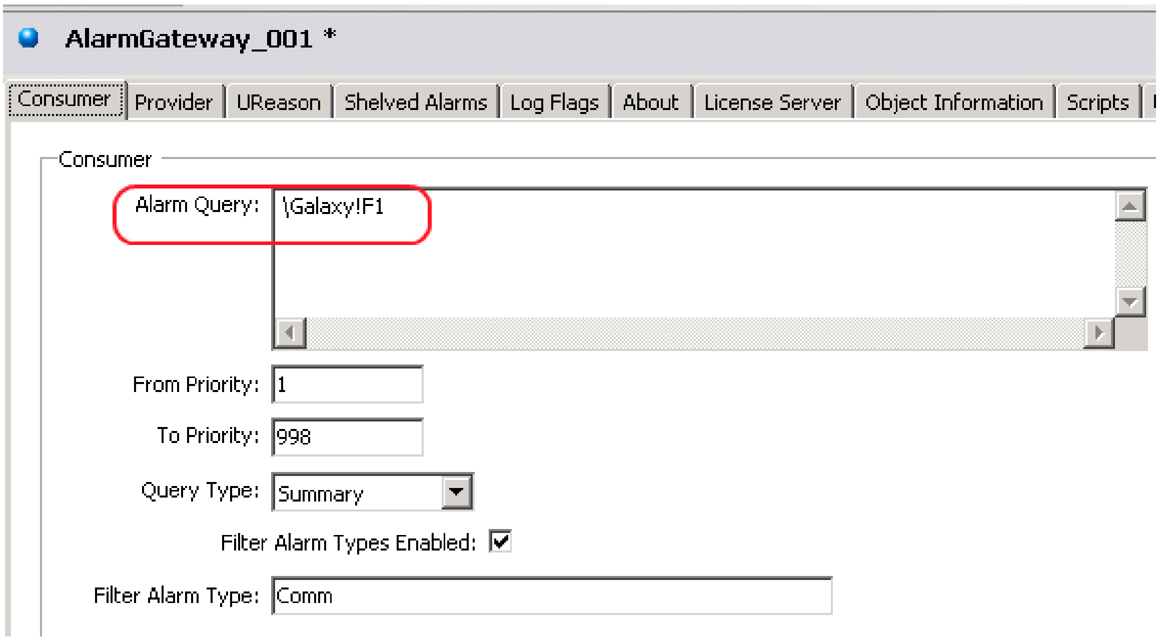


Engine startup type: Auto

Scan period: 7000 ms

9) Configure both Instances of Alarm Gateway:

a. AlarmGateway_001
Alarm Query: **\Galaxy!F1**
Provider name: **AlarmGatewayProvider1**



Alarm Query: \Galaxy!F1

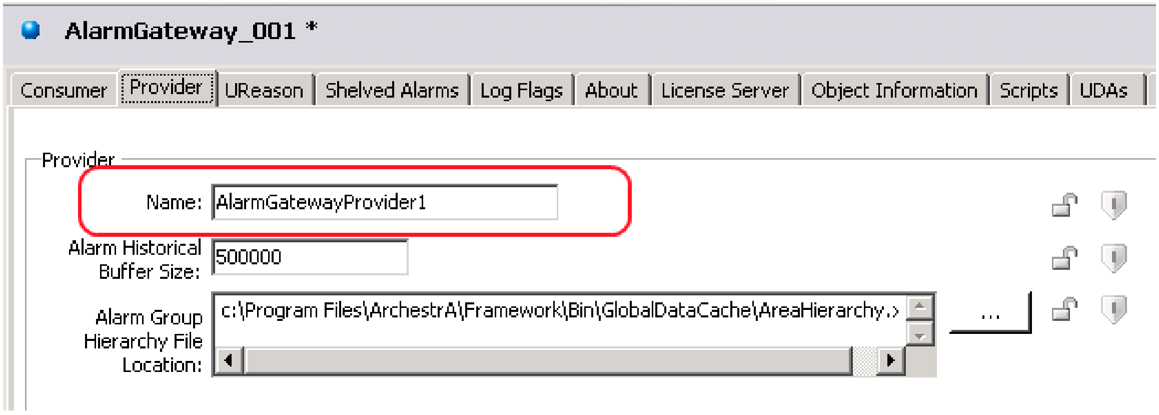
From Priority: 1

To Priority: 998

Query Type: Summary

Filter Alarm Types Enabled: ☑

Filter Alarm Type: Comm


AlarmGateway_001 *

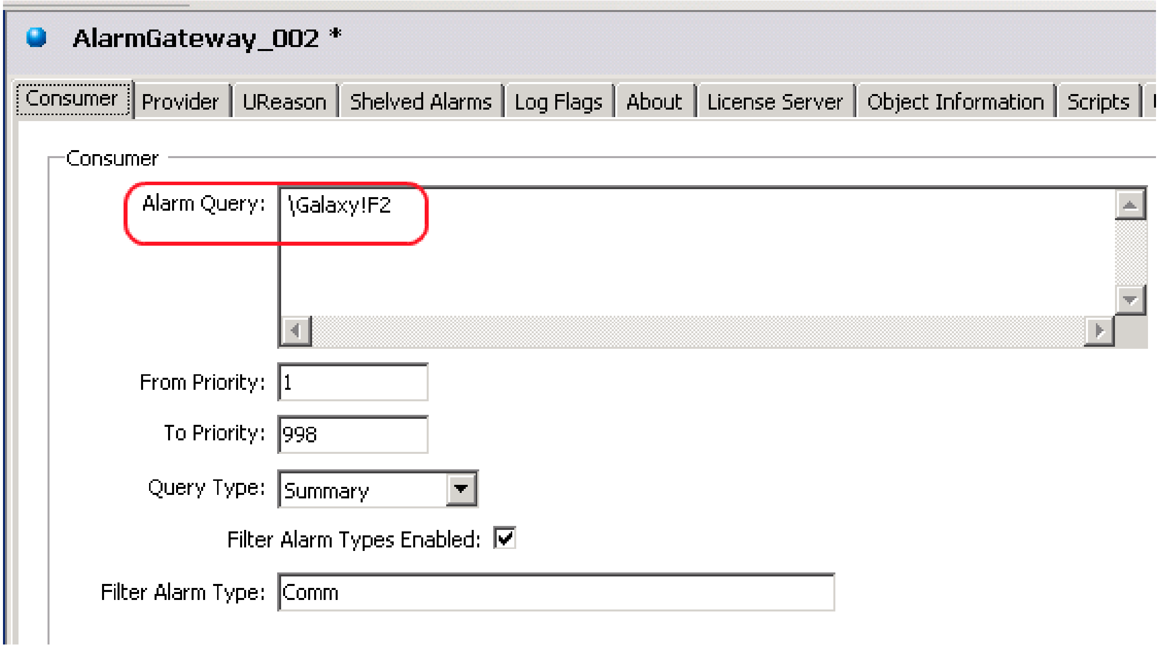
Provider

Name: AlarmGatewayProvider1

Alarm Historical Buffer Size: 500000

Alarm Group Hierarchy File Location: c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCache\AreaHierarchy.>

a. AlarmGateway_002
   Alarm Query: **\Galaxy!F2**
   Provider name: **AlarmGatewayProvider2**


AlarmGateway_002 *

Consumer

Alarm Query: \Galaxy!F2

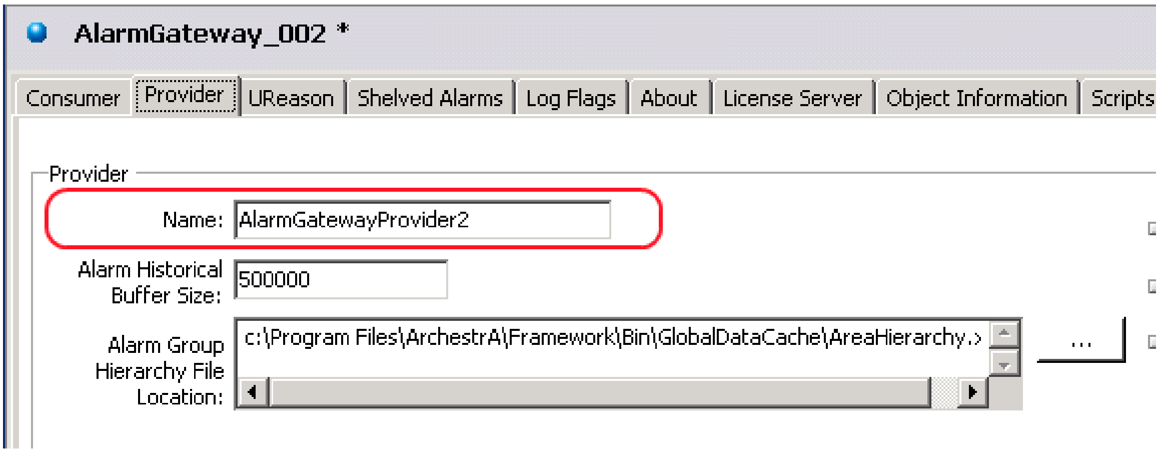
From Priority: 1

To Priority: 998

Query Type: Summary

Filter Alarm Types Enabled: ☑

Filter Alarm Type: Comm


AlarmGateway_002 *

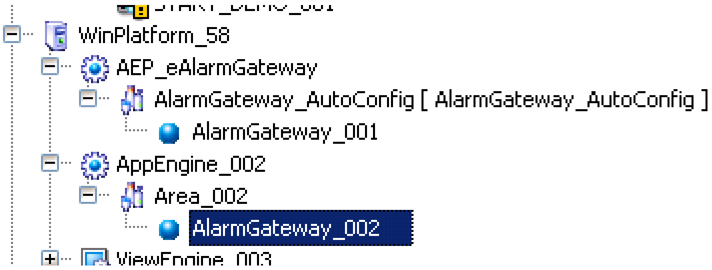
Provider

Name: AlarmGatewayProvider2

Alarm Historical Buffer Size: 500000

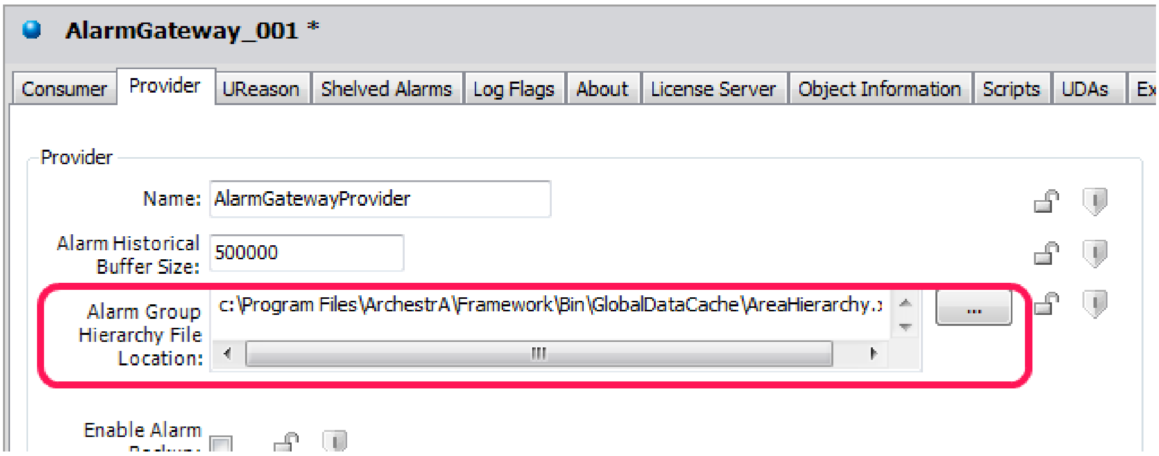
Alarm Group Hierarchy File Location: c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCache\AreaHierarchy.>

10) Deploy both instances of Alarm Gateway



```
START_DEMO_001
WinPlatform_58
  AEP_eAlarmGateway
    AlarmGateway_AutoConfig [ AlarmGateway_AutoConfig ]
      AlarmGateway_001
  AppEngine_002
    Area_002
      AlarmGateway_002
  ViewEngine_003
```

Note: if Area hierarchy is changed (new Area is added or existing is moved), it is required to redeploy AlarmGateway instance to update the **Alarm Group Hierarchy File** information.



AlarmGateway_001 *

Provider

Name: AlarmGatewayProvider

Alarm Historical Buffer Size: 500000

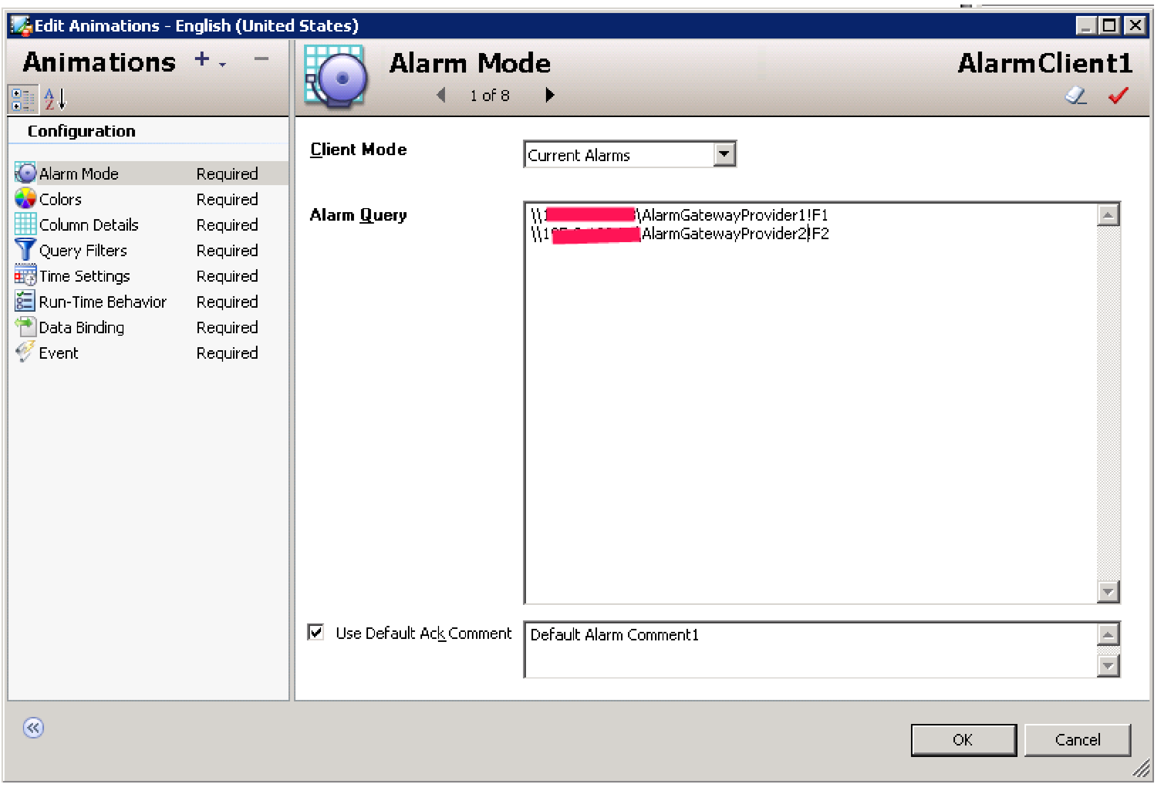
Alarm Group Hierarchy File Location: c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCache\AreaHierarchy.:

Enable Alarm Backup: □

Alarm client configuration

To access both AlarmGateway instances, set the following Alarm query in AlarmClient:

\\Hostname\AlarmGatewayProvider1!F1 \\Hostname\AlarmGatewayProvider2!F2



Configuration

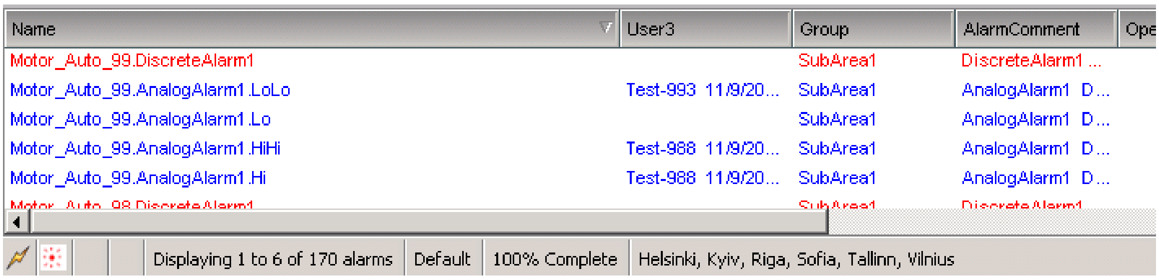
Alarm Mode	Required
Colors	Required
Column Details	Required
Query Filters	Required
Time Settings	Required
Run-Time Behavior	Required
Data Binding	Required
Event	Required

Client Mode: Current Alarms

Alarm Query:

```
\\[redacted]\AlarmGatewayProvider1!F1
\\[redacted]AlarmGatewayProvider2!F2
```

☑ Use Default Ack Comment: Default Alarm Comment1



Name	User3	Group	AlarmComment	Ope
Motor_Auto_99.DiscreteAlarm1		SubArea1	DiscreteAlarm1 ...	
Motor_Auto_99.AnalogAlarm1.LoLo	Test-993 11/9/20...	SubArea1	AnalogAlarm1 D...	
Motor_Auto_99.AnalogAlarm1.Lo		SubArea1	AnalogAlarm1 D...	
Motor_Auto_99.AnalogAlarm1.HiHi	Test-988 11/9/20...	SubArea1	AnalogAlarm1 D...	
Motor_Auto_99.AnalogAlarm1.Hi	Test-988 11/9/20...	SubArea1	AnalogAlarm1 D...	
Motor_Auto_98.DiscreteAlarm1		SubArea1	DiscreteAlarm1	

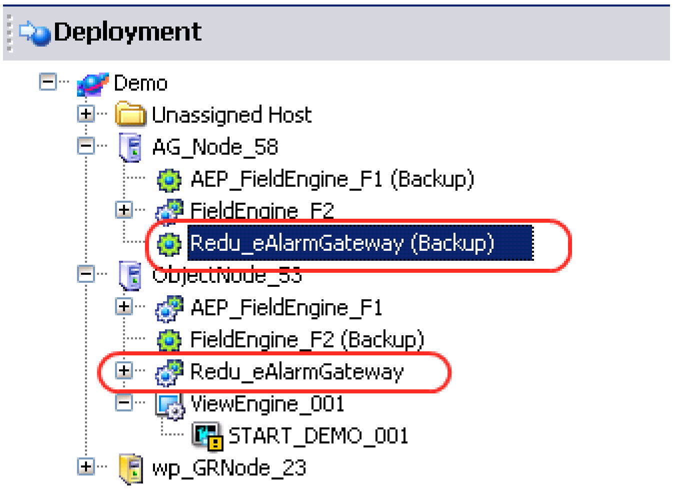
Displaying 1 to 6 of 170 alarms | Default | 100% Complete | Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

Redundant Alarm Gateway configuration setup sample

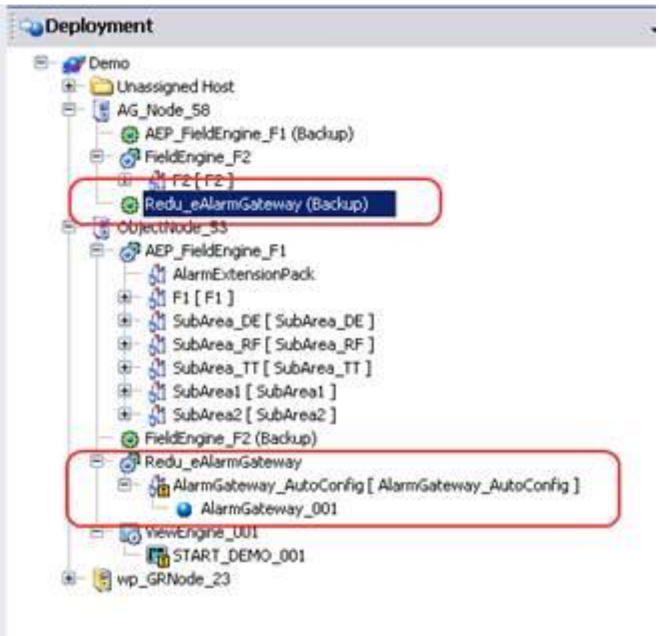
Alarm Gateway Object supports WAS redundancy (for additional information please refer to WAS documentation).

1) Set up redundant AppEngines:

   a. Primary – Redu_eAlarmGateway
   b. Secondary (backup) – place on redundant partner Server.

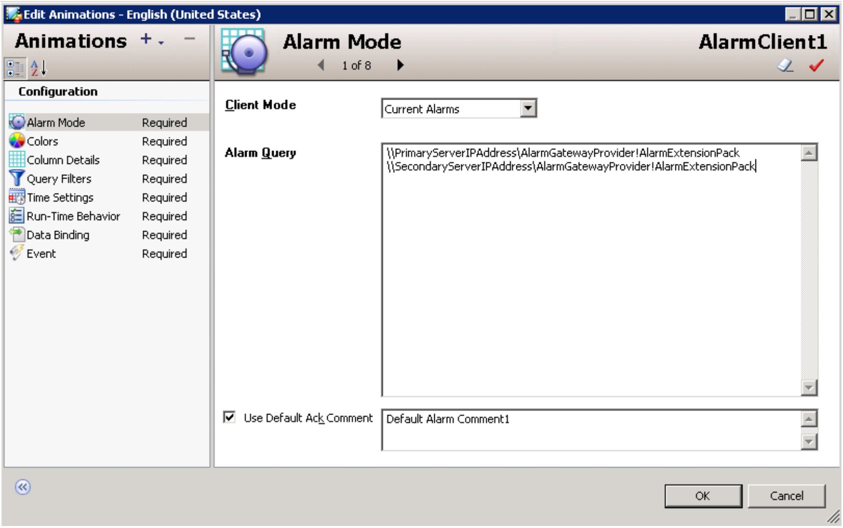


2) Configure Alarm Gateway – there is no need to configure additional settings for redundant Alarm Gateway setup:



3) Configure alarm query for alarm clients to point to Alarm Gateway on both redundant servers:

   \\PrimaryServerIPAddress\AlarmGatewayProvider!AlarmExtensionPack
   \\SecondaryServerIPAddress\AlarmGatewayProvider!AlarmExtensionPack



Configuration

Alarm Mode	Required
Colors	Required
Column Details	Required
Query Filters	Required
Time Settings	Required
Run-Time Behavior	Required
Data Binding	Required
Event	Required

Client Mode: Current Alarms

Alarm Query:
```
\\PrimaryServerIPAddress\AlarmGatewayProvider!AlarmExtensionPack
\\SecondaryServerIPAddress\AlarmGatewayProvider!AlarmExtensionPack
```

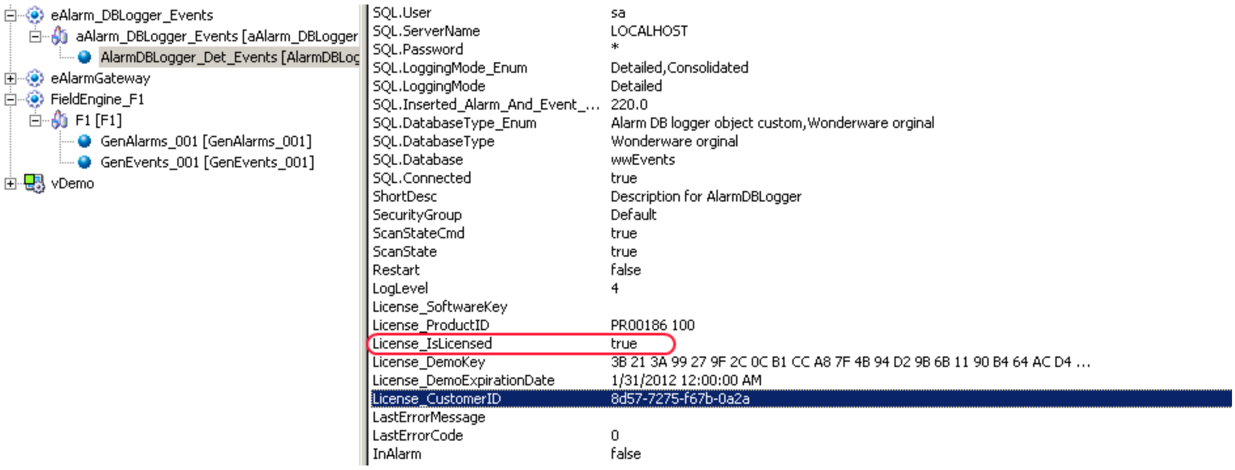
☑ Use Default Ack Comment: Default Alarm Comment1

Troubleshooting

Below are explained common issues that may occur while using Alarm Gateway Object and its features.

1) No alarms from Alarm Provider (WinPlatform) for Alarm Gateway.

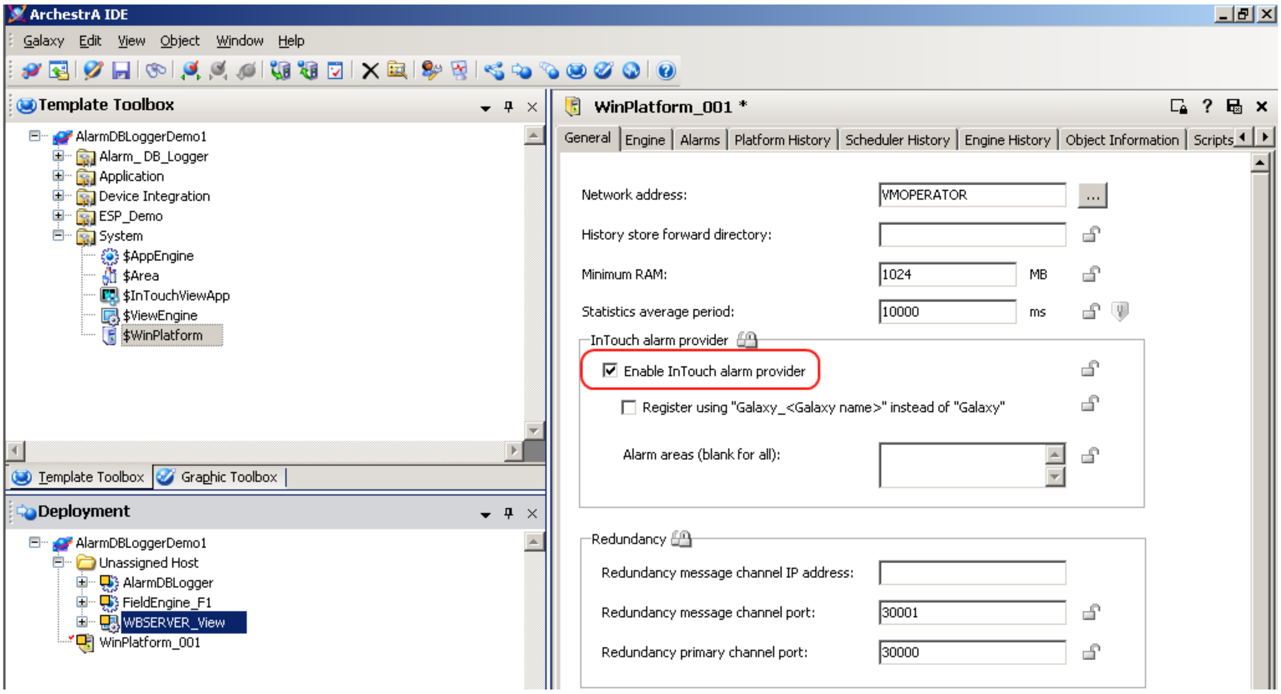
   a) check if valid Demo or full license is installed for Alarm Gateway – check if **License.IsLicensed = true** in Object Viewer:


eAlarm_DBLogger_Events
aAlarm_DBLogger_Events [aAlarm_DBLogger
AlarmDBLogger_Det_Events [AlarmDBLog
eAlarmGateway
FieldEngine_F1
F1 [F1]
GenAlarms_001 [GenAlarms_001]
GenEvents_001 [GenEvents_001]
vDemo

SQL.User	sa
SQL.ServerName	LOCALHOST
SQL.Password	*
SQL.LoggingMode_Enum	Detailed,Consolidated
SQL.LoggingMode	Detailed
SQL.Inserted_Alarm_And_Event_...	220.0
SQL.DatabaseType_Enum	Alarm DB logger object custom,Wonderware orginal
SQL.DatabaseType	Wonderware orginal
SQL.Database	wwEvents
SQL.Connected	true
ShortDesc	Description for AlarmDBLogger
SecurityGroup	Default
ScanStateCmd	true
ScanState	true
Restart	false
LogLevel	4
License_SoftwareKey	
License_ProductID	PR00186 100
License_IsLicensed	true
License_DemoKey	3B 21 3A 99 27 9F 2C 0C B1 CC A8 7F 4B 94 D2 9B 6B 11 90 B4 64 AC D4 ...
License_DemoExpirationDate	1/31/2012 12:00:00 AM
License_CustomerID	8d57-7275-f67b-0a2a
LastErrorMessage	
LastErrorCode	0
InAlarm	false

See **Licensing requirements** section for Alarm Gateway licensing details.

   b) check if WinPlatform object has enabled the alarming - the **Enable InTouch alarm provider** option is checked:



Network address: VMOPERATOR

History store forward directory:

Minimum RAM: 1024 MB

Statistics average period: 10000 ms

InTouch alarm provider

☑ Enable InTouch alarm provider

□ Register using "Galaxy_<Galaxy name>" instead of "Galaxy"

Alarm areas (blank for all):

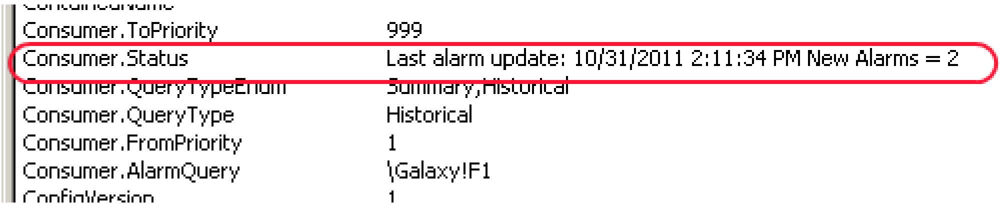
Redundancy

Redundancy message channel IP address:

Redundancy message channel port: 30001

Redundancy primary channel port: 30000

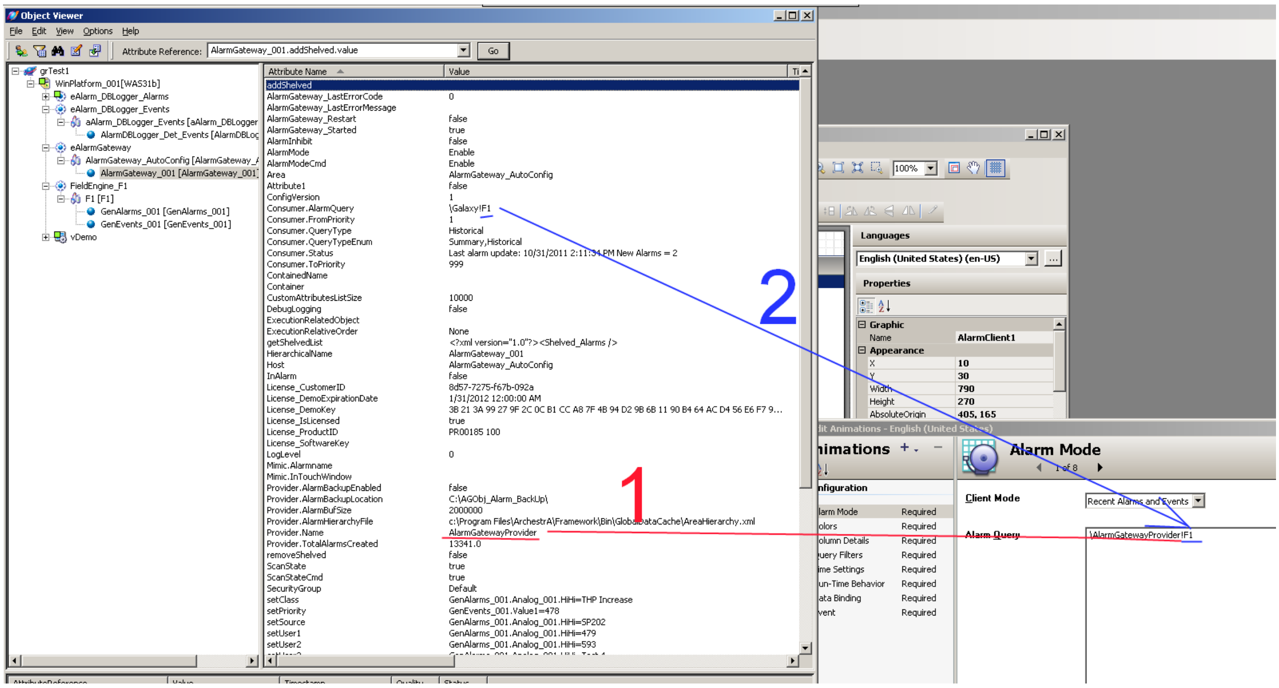
c) if alarms are checked and alarms are displayed in any Wonderware alarm display from Platform directly, check Alarm Gateway consumer settings in Object Viewer, if correct **alarm query**, **FromPriority, ToPriority** is set (must be the same as in Wonderware alarm controls):



ContainedName	
Consumer.ToPriority	999
Consumer.Status	Last alarm update: 10/31/2011 2:11:34 PM New Alarms = 2
Consumer.QueryTypeEnum	Summary,Historical
Consumer.QueryType	Historical
Consumer.FromPriority	1
Consumer.AlarmQuery	\Galaxy!F1
ConfigVersion	1

2) Alarms are coming to Alarm Gateway, but no alarms are displayed in alarm controls that are connected to Alarm Gateway.

a) check if Wonderware alarm controls are configured properly for use with Alarm Gateway:
Is the Alarm provider name configured properly (“1 red” in picture below) in Alarm control (**AlarmGatewayProvider**)
Are Alarm Areas configured properly in Alarm control - must be the same as in property Consumer.AlarmQuery **F1** (“2 blue” in picture below).


Object Viewer
File Edit View Options Help
Attribute Reference: AlarmGateway_001.addShelved.value
Go
grTest1
WinPlatform_001[WAS31b]
eAlarm_DBLogger_Alarms
eAlarm_DBLogger_Events
aAlarm_DBLogger_Events [aAlarm_DBLogger
AlarmDBLogger_Det_Events [AlarmDBLog
eAlarmGateway
AlarmGateway_AutoConfig [AlarmGateway_A
AlarmGateway_001 [AlarmGateway_001]
FieldEngine_F1
F1 [F1]
GenAlarms_001 [GenAlarms_001]
GenEvents_001 [GenEvents_001]
vDemo
2
1
100%
Languages
English (United States) (en-US)
Properties
Edit Animations - English (United States)
Animations
Configuration
Alarm Mode
1 of 8
AttributeReference
Value
Timestamp
Quality
Status

Attribute Name	Value
addShelved	
AlarmGateway_LastErrorCode	0
AlarmGateway_LastErrorMessage	
AlarmGateway_Restart	false
AlarmGateway_Started	true
AlarmInhibit	false
AlarmMode	Enable
AlarmModeCmd	Enable
Area	AlarmGateway_AutoConfig
Attribute1	false
ConfigVersion	1
Consumer.AlarmQuery	\Galaxy!F1
Consumer.FromPriority	1
Consumer.QueryType	Historical
Consumer.QueryTypeEnum	Summary,Historical
Consumer.Status	Last alarm update: 10/31/2011 2:11:34 PM New Alarms = 2
Consumer.ToPriority	999
ContainedName	
Container	
CustomAttributesListSize	10000
DebugLogging	false
ExecutionRelatedObject	
ExecutionRelativeOrder	None
getShelvedList	<?xml version="1.0"?><Shelved_Alarms />
HierarchicalName	AlarmGateway_001
Host	AlarmGateway_AutoConfig
InAlarm	false
License_CustomerID	8d57-7275-f67b-092a
License_DemoExpirationDate	1/31/2012 12:00:00 AM
License_DemoKey	3B 21 3A 99 27 9F 2C 0C B1 CC A8 7F 4B 94 D2 9B 6B 11 90 B4 64 AC D4 56 E6 F7 9...
License_IsLicensed	true
License_ProductID	PR00185 100
License_SoftwareKey	
LogLevel	0
Mimic.Alarmname	
Mimic.InTouchWindow	
Provider.AlarmBackupEnabled	false
Provider.AlarmBackupLocation	C:\AGObj_Alarm_BackUp\
Provider.AlarmBufSize	2000000
Provider.AlarmHierarchyFile	c:\Program Files\ArchestrA\Framework\Bin\GlobalDataCache\AreaHierarchy.xml
Provider.Name	AlarmGatewayProvider
Provider.TotalAlarmsCreated	13341.0
removeShelved	false
ScanState	true
ScanStateCmd	true
SecurityGroup	Default
setClass	GenAlarms_001.Analog_001.HiHi=THP Increase
setPriority	GenEvents_001.Value1=478
setSource	GenAlarms_001.Analog_001.HiHi=SP202
setUser1	GenAlarms_001.Analog_001.HiHi=479
setUser2	GenAlarms_001.Analog_001.HiHi=593

Graphic	
Name	AlarmClient1
Appearance	
X	10
Y	30
Width	790
Height	270
AbsoluteOrigin	405, 165

Alarm Mode	Required
Colors	Required
Column Details	Required
Query Filters	Required
Time Settings	Required
Run-Time Behavior	Required
Data Binding	Required
Event	Required

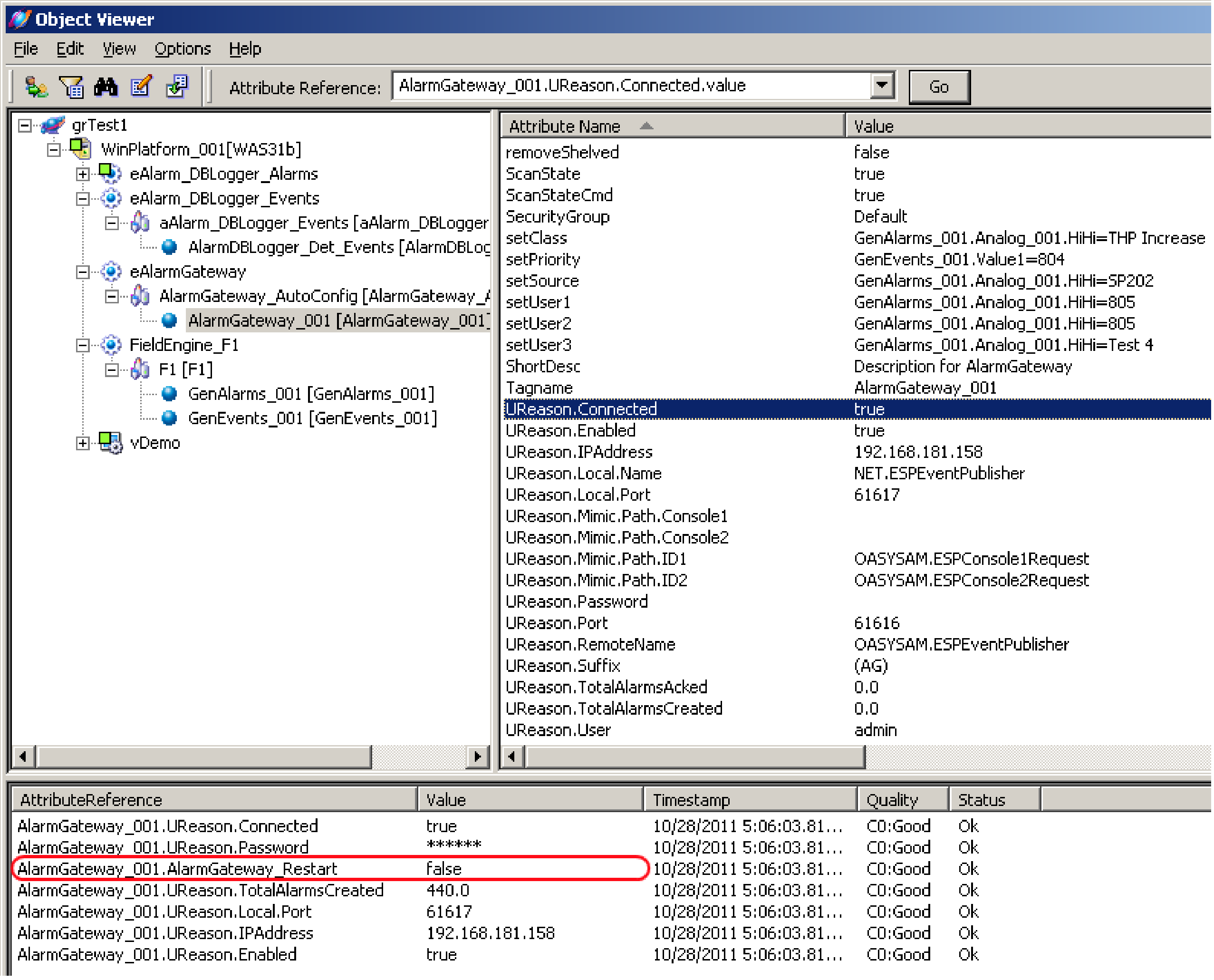
Client Mode: Recent Alarms and Events

Alarm Query: \AlarmGatewayProvider!F1

3) Alarms are displayed in Wonderware alarm controls, but no alarms in UReason alarms system.

   a) check if UReason alarm system is configured properly in Alarm Gateway – check the following:
      - **UReason.IPAddress** attribute **–** is the correct UReason server ID address entered.
      - **UReason.Local.Port** attribute **–** is the correct port for UReason server entered.
      - **UReason.User** attribute **–** is the correct UReason user entered.
      - **UReason.password** attribute **–** is the correct UReason password entered.

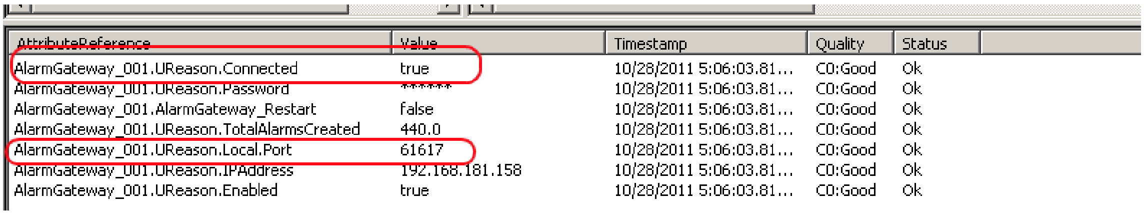
Note: if UReason seeting are changed, it is needed to restart the Alarm Gateway by setting **AlarmGateway.Restart** attribute to **True**.


Object Viewer
File Edit View Options Help
Attribute Reference: AlarmGateway_001.UReason.Connected.value
Go
grTest1
WinPlatform_001[WAS31b]
eAlarm_DBLogger_Alarms
eAlarm_DBLogger_Events
aAlarm_DBLogger_Events [aAlarm_DBLogger
AlarmDBLogger_Det_Events [AlarmDBLog
eAlarmGateway
AlarmGateway_AutoConfig [AlarmGateway_A
AlarmGateway_001 [AlarmGateway_001]
FieldEngine_F1
F1 [F1]
GenAlarms_001 [GenAlarms_001]
GenEvents_001 [GenEvents_001]
vDemo

Attribute Name	Value
removeShelved	false
ScanState	true
ScanStateCmd	true
SecurityGroup	Default
setClass	GenAlarms_001.Analog_001.HiHi=THP Increase
setPriority	GenEvents_001.Value1=804
setSource	GenAlarms_001.Analog_001.HiHi=SP202
setUser1	GenAlarms_001.Analog_001.HiHi=805
setUser2	GenAlarms_001.Analog_001.HiHi=805
setUser3	GenAlarms_001.Analog_001.HiHi=Test 4
ShortDesc	Description for AlarmGateway
Tagname	AlarmGateway_001
UReason.Connected	true
UReason.Enabled	true
UReason.IPAddress	192.168.181.158
UReason.Local.Name	NET.ESPEventPublisher
UReason.Local.Port	61617
UReason.Mimic.Path.Console1	
UReason.Mimic.Path.Console2	
UReason.Mimic.Path.ID1	OASYSAM.ESPConsole1Request
UReason.Mimic.Path.ID2	OASYSAM.ESPConsole2Request
UReason.Password	
UReason.Port	61616
UReason.RemoteName	OASYSAM.ESPEventPublisher
UReason.Suffix	(AG)
UReason.TotalAlarmsAcked	0.0
UReason.TotalAlarmsCreated	0.0
UReason.User	admin

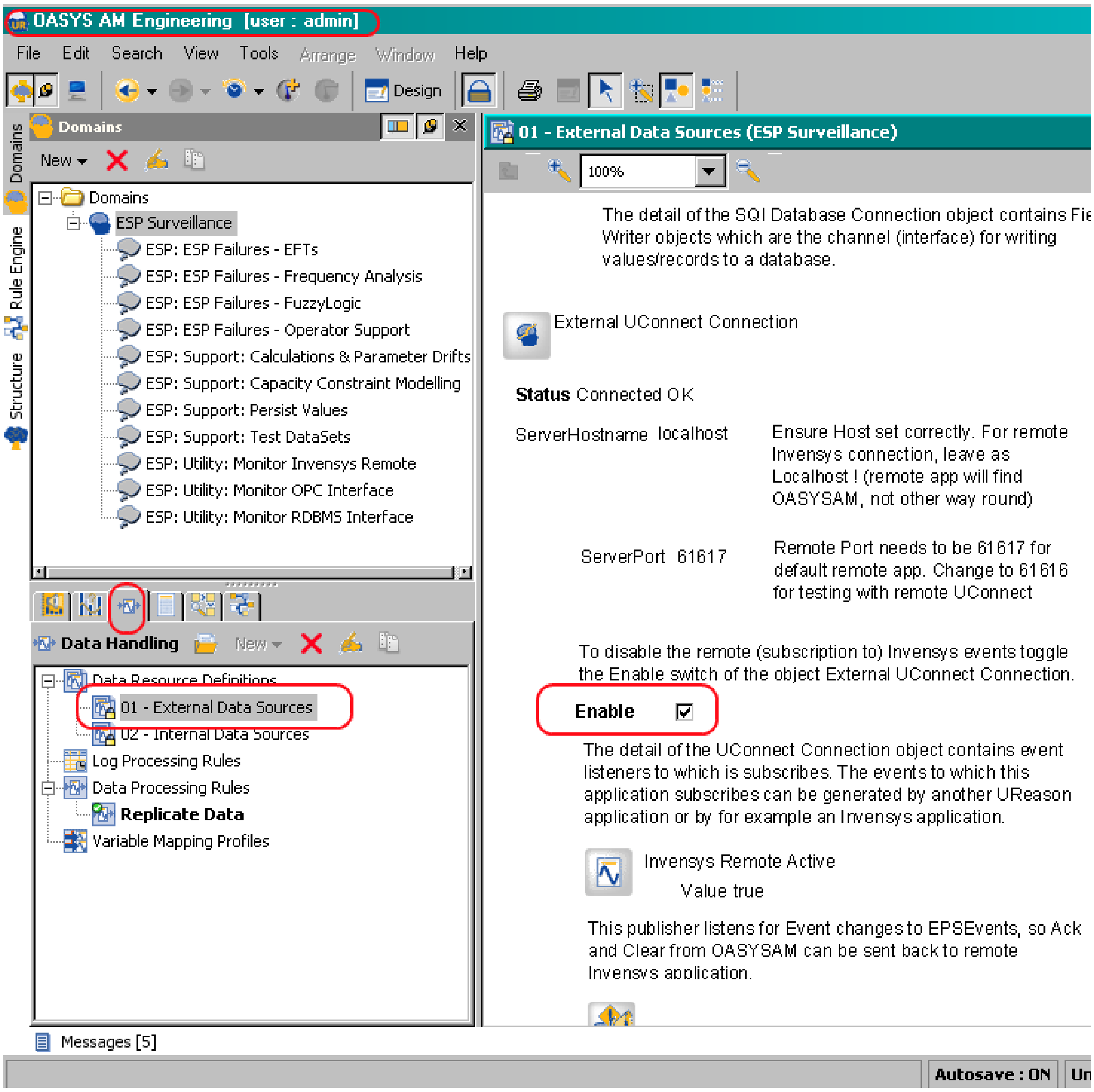
AttributeReference	Value	Timestamp	Quality	Status
AlarmGateway_001.UReason.Connected	true	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.Password	******	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.AlarmGateway_Restart	false	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.TotalAlarmsCreated	440.0	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.Local.Port	61617	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.IPAddress	192.168.181.158	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.Enabled	true	10/28/2011 5:06:03.81...	C0:Good	Ok

   b) Check if alarms are created for UReason at Alarm Gateway side (**UReason.Connected = true)** and **UReason.TotalAlarmsCreated > 0**, and there are still no alarms in UReason alarming system.



AttributeReference	Value	Timestamp	Quality	Status
AlarmGateway_001.UReason.Connected	true	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.Password	*******	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.AlarmGateway_Restart	false	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.TotalAlarmsCreated	440.0	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.Local.Port	61617	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.IPAddress	192.168.181.158	10/28/2011 5:06:03.81...	C0:Good	Ok
AlarmGateway_001.UReason.Enabled	true	10/28/2011 5:06:03.81...	C0:Good	Ok

In this case it is necessary to restart the connection between Wonderware alarm system and UReason alarm system - in UReason console, go to **Data handling** -> **External Data Sources** and uncheck the **Enable** checkbox, then wait for ~3 seconds and check again.



OASYS AM Engineering [user : admin]
File
Edit
Search
View
Tools
Arrange
Window
Help
Design
Domains
New
Domains
ESP Surveillance
ESP: ESP Failures - EFTs
ESP: ESP Failures - Frequency Analysis
ESP: ESP Failures - FuzzyLogic
ESP: ESP Failures - Operator Support
ESP: Support: Calculations & Parameter Drifts
ESP: Support: Capacity Constraint Modelling
ESP: Support: Persist Values
ESP: Support: Test DataSets
ESP: Utility: Monitor Invensys Remote
ESP: Utility: Monitor OPC Interface
ESP: Utility: Monitor RDBMS Interface
Structure
Rule Engine
Domains
Data Handling
New
Data Resource Definitions
01 - External Data Sources
02 - Internal Data Sources
Log Processing Rules
Data Processing Rules
Replicate Data
Variable Mapping Profiles
Messages [5]
01 - External Data Sources (ESP Surveillance)
100%
Autosave : ON
Un

The detail of the SQI Database Connection object contains Fie Writer objects which are the channel (interface) for writing values/records to a database.

External UConnect Connection

Status Connected OK

ServerHostname localhost

Ensure Host set correctly. For remote Invensys connection, leave as Localhost ! (remote app will find OASYSAM, not other way round)

ServerPort 61617

Remote Port needs to be 61617 for default remote app. Change to 61616 for testing with remote UConnect

To disable the remote (subscription to) Invensys events toggle the Enable switch of the object External UConnect Connection.

Enable ☑

The detail of the UConnect Connection object contains event listeners to which is subscribes. The events to which this application subscribes can be generated by another UReason application or by for example an Invensys application.

Invensys Remote Active

Value true

This publisher listens for Event changes to EPSEvents, so Ack and Clear from OASYSAM can be sent back to remote Invensys application.

Advanced Troubleshooting

Alarm Gateway logs the diagnostic information to two diagnostic systems:

1) Wonderware SMC Log Viewer
2) Alarm Gateway custom text files (formats of log files: txt, csv, xml)

Log Flags for SMC Log Viewer

For advanced troubleshooting, it is possible to set Alarm Gateway Log Flags – the following log flags are available:

1. General – (LogFlag.General attribute) logs general diagnostic messages to SMC Log Viewer.

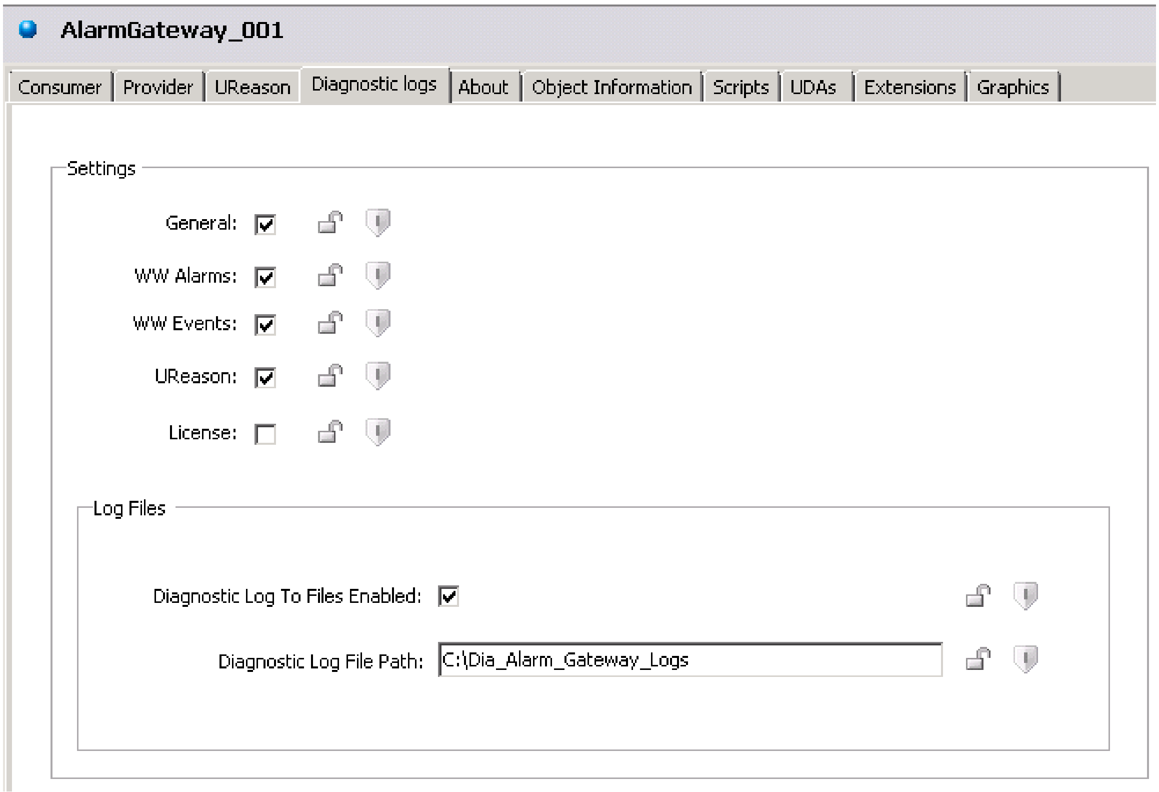
2. WW Alarms – (LogFlag.WWAlarms attribute) logs related with Wonderware alarms diagnostic messages to SMC Log Viewer.

3. WW Events – (LogFlag.WWEvents attribute) logs related with Wonderware events diagnostic messages to SMC Log Viewer.

4. UReason - (LogFlag.UReason attribute) logs related with UReason diagnostic messages to SMC Log Viewer.

5. License - (LogFlag.License attribute) logs related with licensing diagnostic messages to SMC Log Viewer.

It is possible to configure Log Flags in Object Editor:



AlarmGateway_001

Settings

General: ☑

WW Alarms: ☑

WW Events: ☑

UReason: ☑

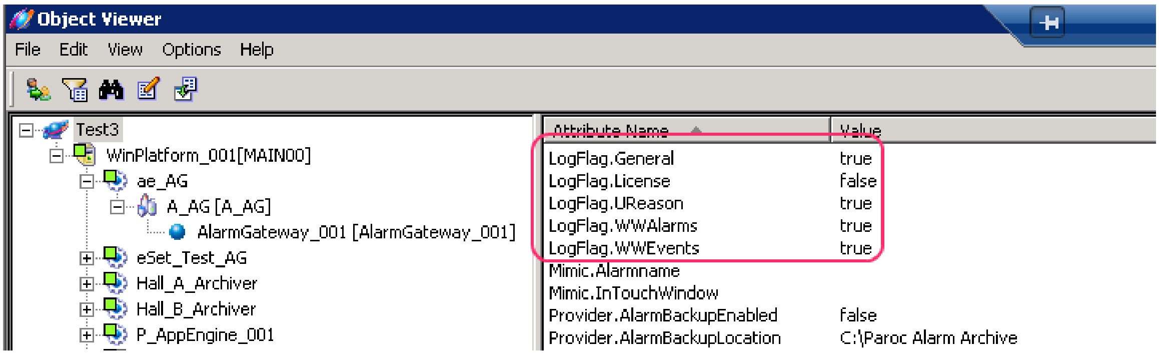
License: □

Log Files

Diagnostic Log To Files Enabled: ☑

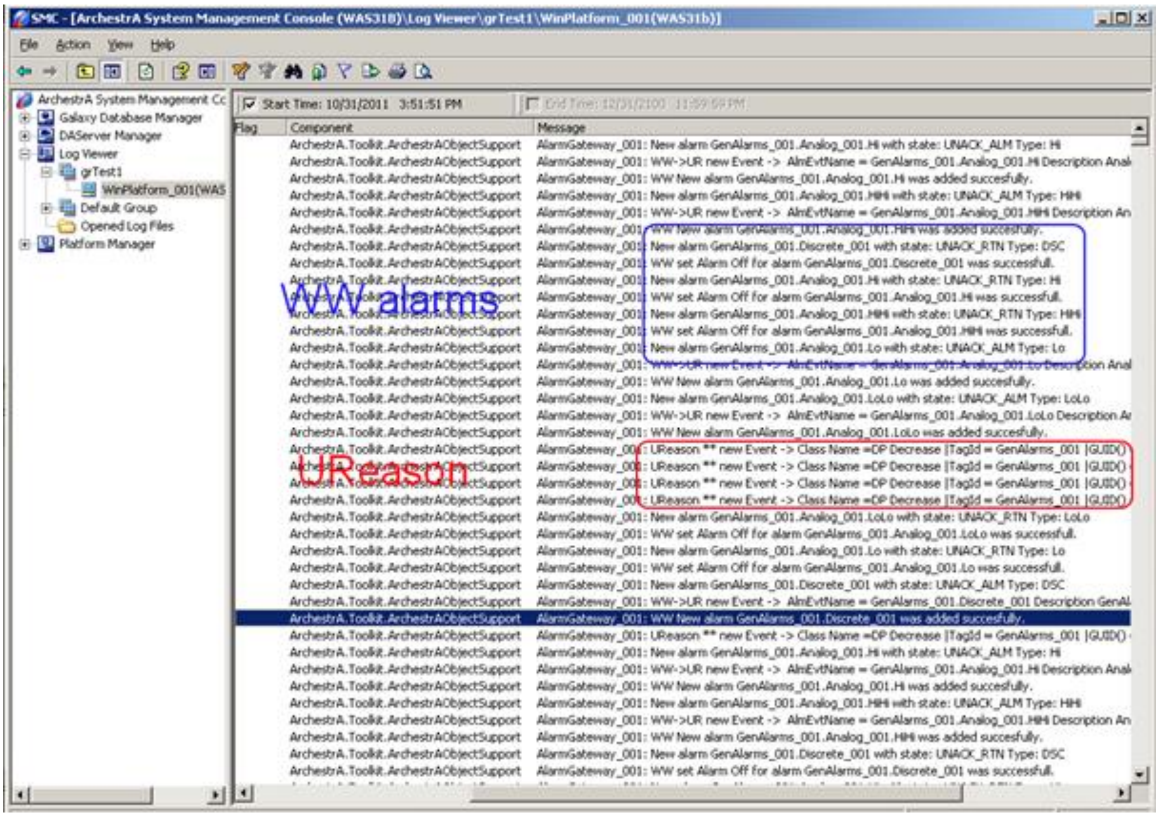
Diagnostic Log File Path: C:\Dia_Alarm_Gateway_Logs

It is possible also to configure Log Flags at runtime by changing the following attributes:



Attribute Name	Value
LogFlag.General	true
LogFlag.License	false
LogFlag.UReason	true
LogFlag.WWAlarms	true
LogFlag.WWEvents	true
Mimic.Alarmname	
Mimic.InTouchWindow	
Provider.AlarmBackupEnabled	false
Provider.AlarmBackupLocation	C:\Paroc Alarm Archive

The logging example:



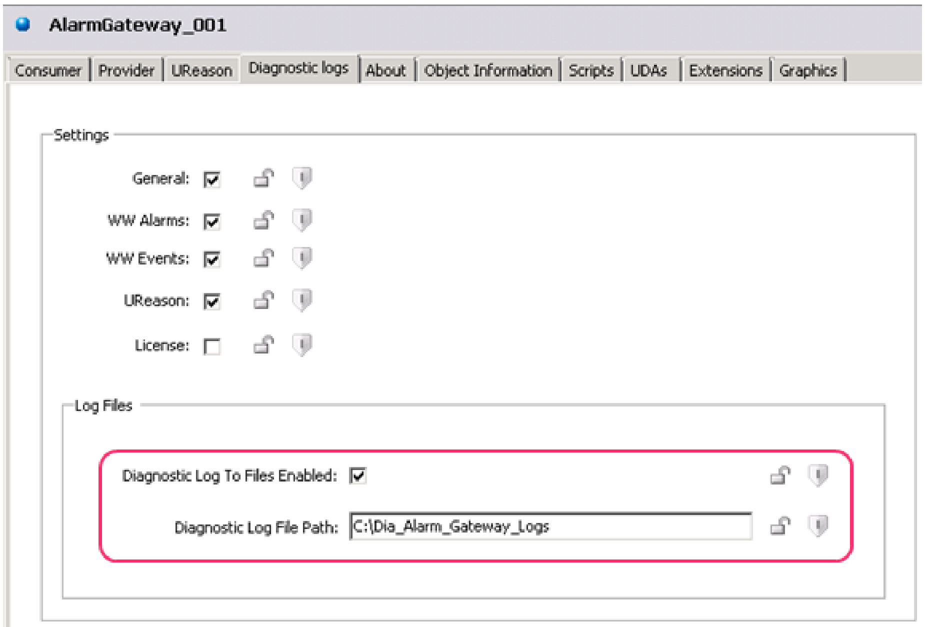
☑ Start Time: 10/31/2011 3:51:51 PM
□ End Time: 12/31/2100 11:59:59 PM

```
Flag  Component                                  Message
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.Hi with state: UNACK_ALM Type: Hi
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW->UR new Event ->  AlmEvtName = GenAlarms_001.Analog_001.Hi Description Anal
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW New alarm GenAlarms_001.Analog_001.Hi was added succesfully.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.HiHi with state: UNACK_ALM Type: HiHi
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW->UR new Event ->  AlmEvtName = GenAlarms_001.Analog_001.HiHi Description An
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW New alarm GenAlarms_001.Analog_001.HiHi was added succesfully.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Discrete_001 with state: UNACK_RTN Type: DSC
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW set Alarm Off for alarm GenAlarms_001.Discrete_001 was successfull.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.Hi with state: UNACK_RTN Type: Hi
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW set Alarm Off for alarm GenAlarms_001.Analog_001.Hi was successfull.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.HiHi with state: UNACK_RTN Type: HiHi
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW set Alarm Off for alarm GenAlarms_001.Analog_001.HiHi was successfull.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.Lo with state: UNACK_ALM Type: Lo
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW->UR new Event ->  AlmEvtName = GenAlarms_001.Analog_001.Lo Description Anal
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW New alarm GenAlarms_001.Analog_001.Lo was added succesfully.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.LoLo with state: UNACK_ALM Type: LoLo
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW->UR new Event ->  AlmEvtName = GenAlarms_001.Analog_001.LoLo Description Ar
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW New alarm GenAlarms_001.Analog_001.LoLo was added succesfully.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: UReason ** new Event -> Class Name =DP Decrease |TagId = GenAlarms_001 |GUID()
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: UReason ** new Event -> Class Name =DP Decrease |TagId = GenAlarms_001 |GUID()
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: UReason ** new Event -> Class Name =DP Decrease |TagId = GenAlarms_001 |GUID()
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: UReason ** new Event -> Class Name =DP Decrease |TagId = GenAlarms_001 |GUID()
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.LoLo with state: UNACK_RTN Type: LoLo
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW set Alarm Off for alarm GenAlarms_001.Analog_001.LoLo was successfull.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.Lo with state: UNACK_RTN Type: Lo
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW set Alarm Off for alarm GenAlarms_001.Analog_001.Lo was successfull.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Discrete_001 with state: UNACK_ALM Type: DSC
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW->UR new Event ->  AlmEvtName = GenAlarms_001.Discrete_001 Description GenAl
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW New alarm GenAlarms_001.Discrete_001 was added succesfully.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: UReason ** new Event -> Class Name =DP Decrease |TagId = GenAlarms_001 |GUID()
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.Hi with state: UNACK_ALM Type: Hi
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW->UR new Event ->  AlmEvtName = GenAlarms_001.Analog_001.Hi Description Anal
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW New alarm GenAlarms_001.Analog_001.Hi was added succesfully.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Analog_001.HiHi with state: UNACK_ALM Type: HiHi
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW->UR new Event ->  AlmEvtName = GenAlarms_001.Analog_001.HiHi Description An
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW New alarm GenAlarms_001.Analog_001.HiHi was added succesfully.
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: New alarm GenAlarms_001.Discrete_001 with state: UNACK_RTN Type: DSC
      ArchestrA.Toolkit.ArchestrAObjectSupport   AlarmGateway_001: WW set Alarm Off for alarm GenAlarms_001.Discrete_001 was successfull.
```

Logging to Custom log file

1. Check the **Diagnostic Log To Files Enabled**.

2. In **Diagnostic Log File Path** set the folder where to store the log files.



General: ☑

WW Alarms: ☑

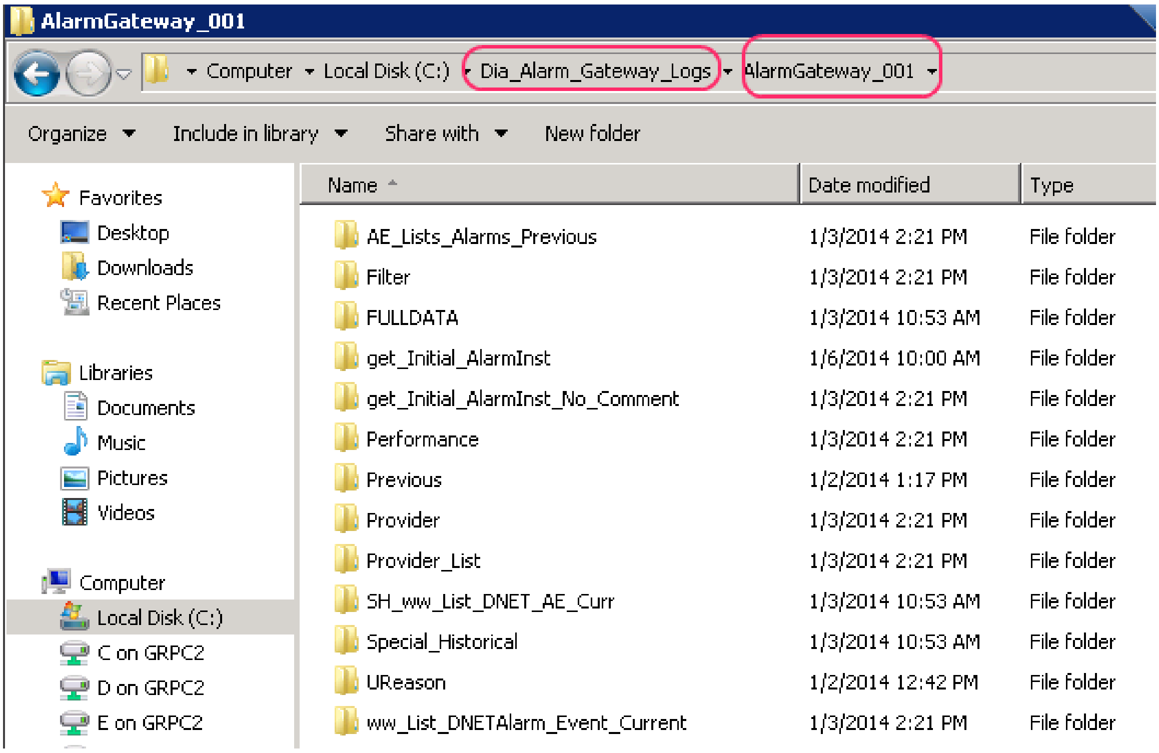
WW Events: ☑

UReason: ☑

License: ☐

Diagnostic Log To Files Enabled: ☑

Diagnostic Log File Path: C:\Dia_Alarm_Gateway_Logs



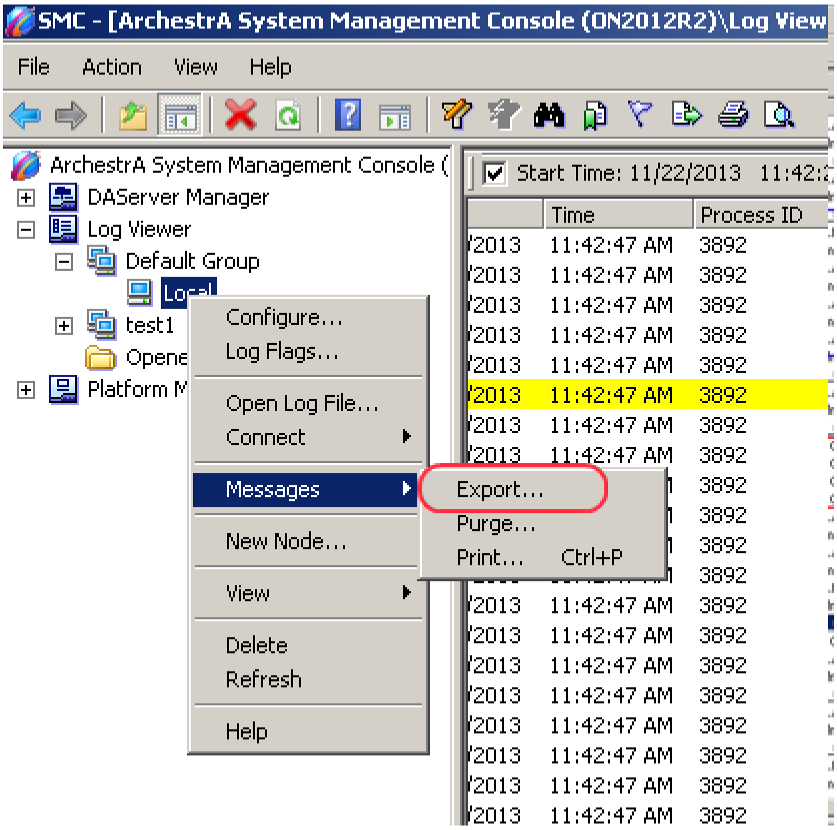
Name	Date modified	Type
AE_Lists_Alarms_Previous	1/3/2014 2:21 PM	File folder
Filter	1/3/2014 2:21 PM	File folder
FULLDATA	1/3/2014 10:53 AM	File folder
get_Initial_AlarmInst	1/6/2014 10:00 AM	File folder
get_Initial_AlarmInst_No_Comment	1/3/2014 2:21 PM	File folder
Performance	1/3/2014 2:21 PM	File folder
Previous	1/2/2014 1:17 PM	File folder
Provider	1/3/2014 2:21 PM	File folder
Provider_List	1/3/2014 2:21 PM	File folder
SH_ww_List_DNET_AE_Curr	1/3/2014 10:53 AM	File folder
Special_Historical	1/3/2014 10:53 AM	File folder
UReason	1/2/2014 12:42 PM	File folder
ww_List_DNETAlarm_Event_Current	1/3/2014 2:21 PM	File folder

Collecting log files for technical support

1) Enable the logging (details about parameters - see above in **Advanced Troubleshooting** section).

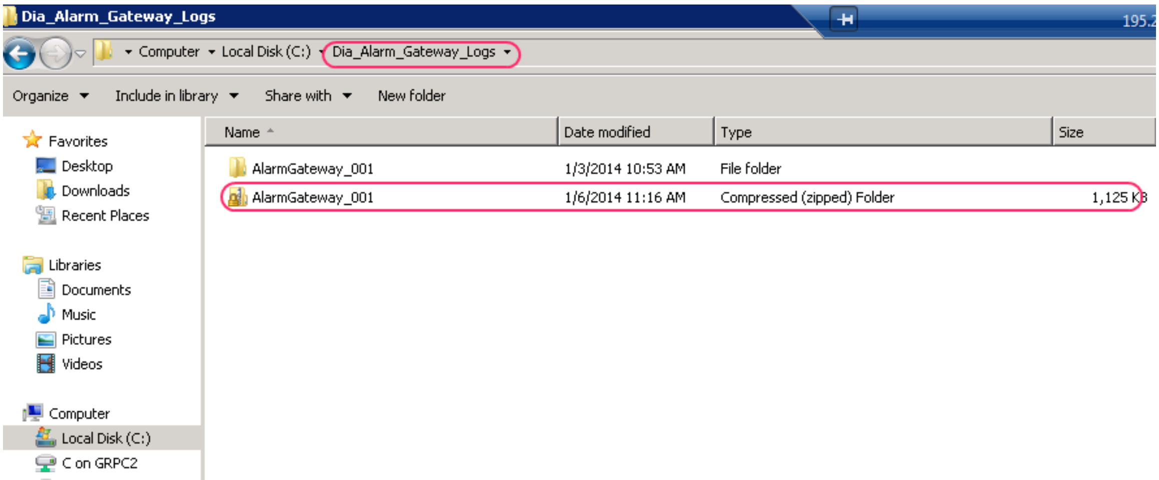
2) Replicate the issue.

3) Export SMC log file and archive it:



	Time	Process ID
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
		3892
		3892
		3892
		3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892
/2013	11:42:47 AM	3892

4) Locate custom log files and archive the log directory:



Name	Date modified	Type	Size
AlarmGateway_001	1/3/2014 10:53 AM	File folder	
AlarmGateway_001	1/6/2014 11:16 AM	Compressed (zipped) Folder	1,125 KB

5) Send both log files to technical support.

Object upgrade procedure

1) Open ArchestrA IDE and undeploy all Application Engine(s) that are hosting Alarm Gateway object(s).

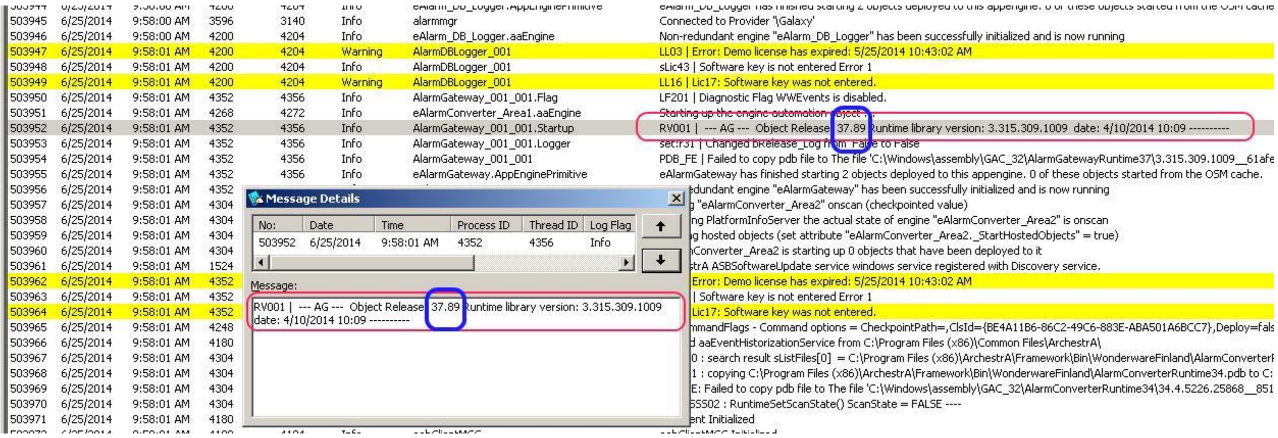
2) Import the new version of Alarm Gateway Object.

3) Close and reopen ArchestrA IDE to update the object editor.

4) Deploy Alarm Gateway object host platform to install the software update.

5) Deploy all Application Engine(s) that are hosting Alarm Gateway object(s) to load the latest Alarm Gateway runtime libraries.

6) The Alarm Gateway Object current version installed can be find out in Log Viewer in the message starting with “RV001”:



```
503945  6/25/2014  9:58:00 AM  3596  3140  Info     alarmmgr                             Connected to Provider '\Galaxy'
503946  6/25/2014  9:58:00 AM  4200  4204  Info     eAlarm_DB_Logger.aaEngine            Non-redundant engine "eAlarm_DB_Logger" has been successfully initialized and is now running
503947  6/25/2014  9:58:01 AM  4200  4204  Warning  AlarmDBLogger_001                    LL03 | Error: Demo license has expired: 5/25/2014 10:43:02 AM
503948  6/25/2014  9:58:01 AM  4200  4204  Info     AlarmDBLogger_001                    sLic43 | Software key is not entered Error 1
503949  6/25/2014  9:58:01 AM  4200  4204  Warning  AlarmDBLogger_001                    LL16 | Lic17: Software key was not entered.
503950  6/25/2014  9:58:01 AM  4352  4356  Info     AlarmGateway_001_001.Flag            LF201 | Diagnostic Flag WWEvents is disabled.
503951  6/25/2014  9:58:01 AM  4268  4272  Info     eAlarmConverter_Area1.aaEngine       Starting up the engine automation object ...
503952  6/25/2014  9:58:01 AM  4352  4356  Info     AlarmGateway_001_001.Startup         RV001 |  --- AG ---  Object Release 37.89 Runtime library version: 3.315.309.1009  date: 4/10/2014 10:09 ----------
503953  6/25/2014  9:58:01 AM  4352  4356  Info     AlarmGateway_001_001.Logger          set:r31 | Changed bRelease_Log from False to False
503954  6/25/2014  9:58:01 AM  4352  4356  Info     AlarmGateway_001_001                 PDB_FE | Failed to copy pdb file to The file 'C:\Windows\assembly\GAC_32\AlarmGatewayRuntime37\3.315.309.1009__61afe
503955  6/25/2014  9:58:01 AM  4352  4356  Info     eAlarmGateway.AppEnginePrimitive     eAlarmGateway has finished starting 2 objects deployed to this appengine. 0 of these objects started from the OSM cache.
503956  6/25/2014  9:58:01 AM  4352                                                       edundant engine "eAlarmGateway" has been successfully initialized and is now running
503957  6/25/2014  9:58:01 AM  4304                                                       g "eAlarmConverter_Area2" onscan (checkpointed value)
503958  6/25/2014  9:58:01 AM  4304                                                       ng PlatformInfoServer the actual state of engine "eAlarmConverter_Area2" is onscan
503959  6/25/2014  9:58:01 AM  4304                                                       g hosted objects (set attribute "eAlarmConverter_Area2._StartHostedObjects" = true)
503960  6/25/2014  9:58:01 AM  4304                                                       Converter_Area2 is starting up 0 objects that have been deployed to it
503961  6/25/2014  9:58:01 AM  1524                                                       strA ASBSoftwareUpdate service windows service registered with Discovery service.
503962  6/25/2014  9:58:01 AM  4352                                                       Error: Demo license has expired: 5/25/2014 10:43:02 AM
503963  6/25/2014  9:58:01 AM  4352                                                       | Software key is not entered Error 1
503964  6/25/2014  9:58:01 AM  4352                                                       Lic17: Software key was not entered.
503965  6/25/2014  9:58:01 AM  4248                                                       mmandFlags - Command options = CheckpointPath=,ClsId={BE4A11B6-86C2-49C6-883E-ABA501A6BCC7},Deploy=fals
503966  6/25/2014  9:58:01 AM  4180                                                       d aaEventHistorizationService from C:\Program Files (x86)\Common Files\ArchestrA\
503967  6/25/2014  9:58:01 AM  4304                                                       0 : search result sListFiles[0]  = C:\Program Files (x86)\ArchestrA\Framework\Bin\WonderwareFinland\AlarmConverterR
503968  6/25/2014  9:58:01 AM  4304                                                       1 : copying C:\Program Files (x86)\ArchestrA\Framework\Bin\WonderwareFinland\AlarmConverterRuntime34.pdb to C:
503969  6/25/2014  9:58:01 AM  4304                                                       E: Failed to copy pdb file to The file 'C:\Windows\assembly\GAC_32\AlarmConverterRuntime34\34.4.5226.25868__851
503970  6/25/2014  9:58:01 AM  4304                                                       SS02 : RuntimeSetScanState() ScanState = FALSE ----
503971  6/25/2014  9:58:01 AM  4180                                                       ent Initialized
```

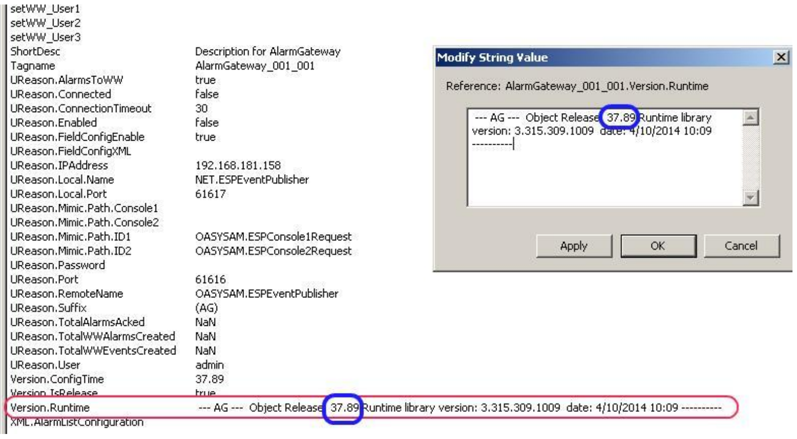
Message Details

No:	Date	Time	Process ID	Thread ID	Log Flag
503952	6/25/2014	9:58:01 AM	4352	4356	Info

Message:

```
RV001 |  --- AG ---  Object Release 37.89 Runtime library version: 3.315.309.1009
date: 4/10/2014 10:09 ----------
```

As well, the Alarm Gateway Object current version installed can be find out in Object Viewer by examining the content of Alarm Gateway attribute Version.Runtime:



```
setWW_User1
setWW_User2
setWW_User3
ShortDesc                         Description for AlarmGateway
Tagname                           AlarmGateway_001_001
UReason.AlarmsToWW                true
UReason.Connected                 false
UReason.ConnectionTimeout         30
UReason.Enabled                   false
UReason.FieldConfigEnable         true
UReason.FieldConfigXML
UReason.IPAddress                 192.168.181.158
UReason.Local.Name                NET.ESPEventPublisher
UReason.Local.Port                61617
UReason.Mimic.Path.Console1
UReason.Mimic.Path.Console2
UReason.Mimic.Path.ID1            OASYSAM.ESPConsole1Request
UReason.Mimic.Path.ID2            OASYSAM.ESPConsole2Request
UReason.Password
UReason.Port                      61616
UReason.RemoteName                OASYSAM.ESPEventPublisher
UReason.Suffix                    (AG)
UReason.TotalAlarmsAcked          NaN
UReason.TotalWWAlarmsCreated      NaN
UReason.TotalWWEventsCreated      NaN
UReason.User                      admin
Version.ConfigTime                37.89
Version.IsRelease                 true
Version.Runtime                    --- AG ---  Object Release 37.89 Runtime library version: 3.315.309.1009  date: 4/10/2014 10:09 ----------
XML.AlarmListConfiguration
```

Modify String Value

Reference: AlarmGateway_001_001.Version.Runtime

```
 --- AG ---  Object Release 37.89 Runtime library
version: 3.315.309.1009  date: 4/10/2014 10:09
----------
```

Object clean uninstall procedure

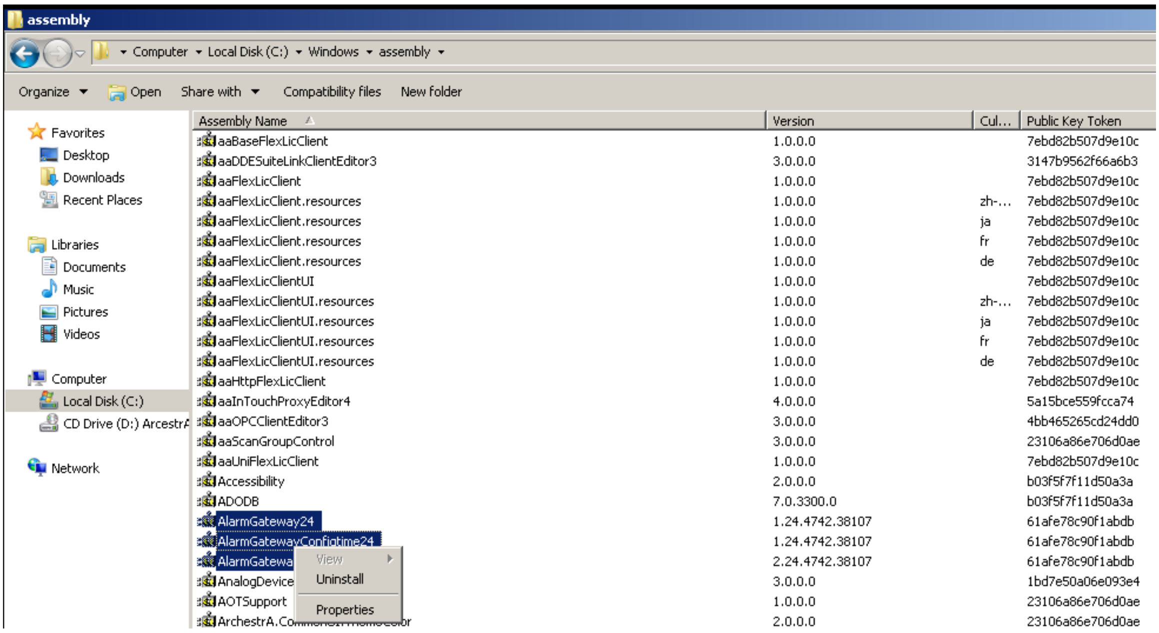
This procedure can be used to fully uninstall the Alarm Gateway object.
Can be used to downgrade to previous object version or to fix Alarm Gateway object upgrade issues.

Note: this procedure must be performed on **all WAS nodes where Alarm Gateway object was used/installed** (IDE node, object nodes).

1) Undeploy all **WinPlatforms** that host Alarm Gateway object.
2) Delete all Alarm Gateway instances and templates from Galaxy.
3) Close ArchestrA IDE.
4) Uninstall manually the Alarm Gateway object assembles in case they still are installed:

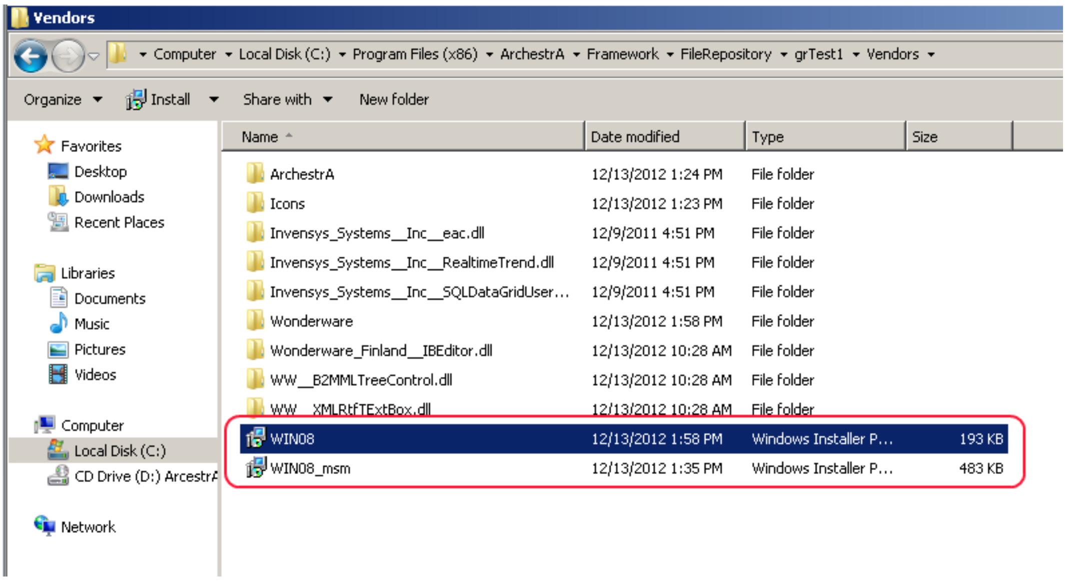
    a. Browse to **C:\Windows\assembly** folder, select all Assemblies named **AlarmGatewayXX**, were XX is the Alarm Gateway object version number, e.g. 24.

    b. Open the context menu by clicking right mouse button and select the **Uninstall** option:



Assembly Name	Version	Cul...	Public Key Token
aaBaseFlexLicClient	1.0.0.0		7ebd82b507d9e10c
aaDDESuiteLinkClientEditor3	3.0.0.0		3147b9562f66a6b3
aaFlexLicClient	1.0.0.0		7ebd82b507d9e10c
aaFlexLicClient.resources	1.0.0.0	zh-...	7ebd82b507d9e10c
aaFlexLicClient.resources	1.0.0.0	ja	7ebd82b507d9e10c
aaFlexLicClient.resources	1.0.0.0	fr	7ebd82b507d9e10c
aaFlexLicClient.resources	1.0.0.0	de	7ebd82b507d9e10c
aaFlexLicClientUI	1.0.0.0		7ebd82b507d9e10c
aaFlexLicClientUI.resources	1.0.0.0	zh-...	7ebd82b507d9e10c
aaFlexLicClientUI.resources	1.0.0.0	ja	7ebd82b507d9e10c
aaFlexLicClientUI.resources	1.0.0.0	fr	7ebd82b507d9e10c
aaFlexLicClientUI.resources	1.0.0.0	de	7ebd82b507d9e10c
aaHttpFlexLicClient	1.0.0.0		7ebd82b507d9e10c
aaInTouchProxyEditor4	4.0.0.0		5a15bce559fcca74
aaOPCClientEditor3	3.0.0.0		4bb465265cd24dd0
aaScanGroupControl	3.0.0.0		23106a86e706d0ae
aaUniFlexLicClient	1.0.0.0		7ebd82b507d9e10c
Accessibility	2.0.0.0		b03f5f7f11d50a3a
ADODB	7.0.3300.0		b03f5f7f11d50a3a
AlarmGateway24	1.24.4742.38107		61afe78c90f1abdb
AlarmGatewayConfigtime24	1.24.4742.38107		61afe78c90f1abdb
AlarmGatewa	2.24.4742.38107		61afe78c90f1abdb
AnalogDevice	3.0.0.0		1bd7e50a06e093e4
AOTSupport	1.0.0.0		23106a86e706d0ae
ArchestrA.Co	2.0.0.0		23106a86e706d0ae

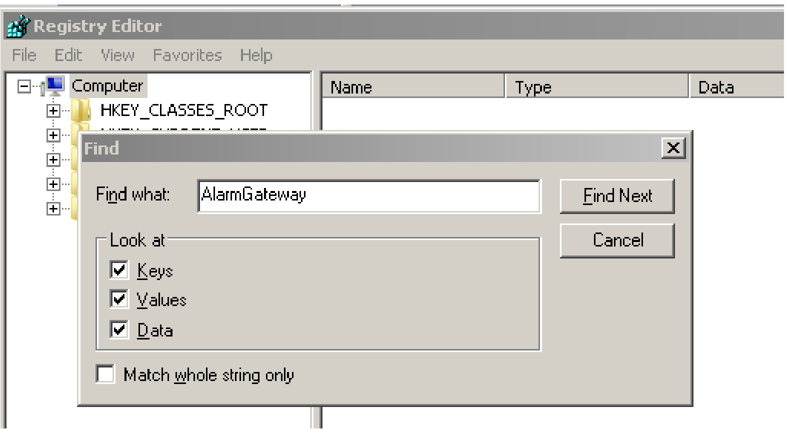
5) Delete MSI installers (.msi files) generated by WAS, containing links to deleted/invalid files from: **C:\Program Files (x86)\ArchestrA\Framework\FileRepository\<Your Galaxy Name>\Vendors** folder. The **<Your Galaxy Name> is** your galaxy name e.g. **grTest1**, and .msi files are named like **<User name>.msi**, where **<User name>** is the currently logged user name – user that was used to install object, for example, WIN08.msi:



Name	Date modified	Type	Size
ArchestrA	12/13/2012 1:24 PM	File folder	
Icons	12/13/2012 1:23 PM	File folder	
Invensys_Systems__Inc__eac.dll	12/9/2011 4:51 PM	File folder	
Invensys_Systems__Inc__RealtimeTrend.dll	12/9/2011 4:51 PM	File folder	
Invensys_Systems__Inc__SQLDataGridUser…	12/9/2011 4:51 PM	File folder	
Wonderware	12/13/2012 1:58 PM	File folder	
Wonderware_Finland__IBEditor.dll	12/13/2012 10:28 AM	File folder	
WW__B2MMLTreeControl.dll	12/13/2012 10:28 AM	File folder	
WW__XMLRtfTExtBox.dll	12/13/2012 10:28 AM	File folder	
WIN08	12/13/2012 1:58 PM	Windows Installer P…	193 KB
WIN08_msm	12/13/2012 1:35 PM	Windows Installer P…	483 KB

6) Delete the temporasry files from C:\Windows\Temp folder.

7) Delete all entries that contain **AlarmGateway** from Windows registry:



Find what: AlarmGateway

Look at
☑ Keys
☑ Values
☑ Data

☐ Match whole string only

8) Restart the computer.

WONDERWARE FINLAND
Alarm Gateway Object
Revision History

Jun 2011	Rev 1.0	First Release
Jun 2011	Rev 1.1	Alarm Group Hierarchy XML “Associated Attribute” and “Description” changed
Sep 2011	Rev 1.2	“Custom attributes” and “UReason gateway” added.
Sep 2011	Rev 1.3	“Custom attributes” for “UReason gateway” added. Mimic windows functionality added.
Oct 2011	Rev 1.4	“Installing the Alarm Gateway Object” section modified. “Troubleshooting” and “Object upgrade procedure” sections added.
Mar 2012	Rev 1.5	Exposed Alarm field feature added.
Jul 2012	Rev 1.6	Updated Exposed attributes section.
Aug 2012	Rev. 1.7	added section Custom Acked alarm comment field.
Oct 2012	Rev. 1.9	Object version 17 updates.
Dec 2012	Rev. 1.10	Added object clean uninstall procedure.
Dec 2013	Rev. 1.11	Corrections in manual Table of Contents, headings and contents of all chapters.
Jun 2014	Rev. 1.12	“Object upgrade procedure” and “Object clean uninstall procedure” sections modified. Corrections in manual text. .